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Stop Tetra-Ethyl Lead Distribution Pending Conference on Hazard

By Paul Truesdell

N. P. N. STAFF WRITER

CLEVELAND, May 5 DISTRIBUTION of tetra-ethyl lead, the anti-knock fluid discovered by General Motors chemists for treating gasoline, will be indefinitely suspended, beginning today, pending the result of a conference to be held before the Surgeon General of the United States on May 20.

This is according to a statement given out yesterday by officials of the Ethyl Gasoline Corp. at their Headquarters, 25 Broadway New York City.

Also effective this morning, the Standard Oil Co. of Indiana, which markets Ethyl gasoline over the largest territory of any company, states that it has entirely ceased selling it.

The Ethyl Gasoline Corp. is an organization that was formed last August jointly by the Standard Oil Co. of New Jersey and General Motors to take over the patents, manufacturing processes and sales rights covering the anti-knock fluid. The $5,000,000 capital stock of the company is owned half by the Standard of New Jersey and half by General Motors.

The effect of this conference is likely to be far reaching; it may in fact determine the part that ethyl gasoline is to play in the further development of American motor fuels and American automobile engines.

The Standard Oil Co. of Indiana, the standard of New Jersey, the Gulf Refining Co., Spears & Riddle in West Virginia and the Refiners Oil Co. of Dayton in Ohio are the biggest distributors of Ethyl gasoline. The stocks of the treated gasoline and of the tetra-ethyl lead fluid they have on hand may be the controlling factors in how long the other companies keep up their retail distribution of Ethyl gasoline to the public, in the absence of further shipments from the tetra-ethyl lead manufacturing plants.

Tetra-ethyl lead as an anti-knock agent was discovered by C. F. Kettering and Thomas Midgley Jr., of the General Motors Research Corp. something like three years ago. It is composed, roughly, of lead, ethylene bromide and alcohol. The lead is the knock-suppressing agent, alcohol the carrier and bromine the protector of the brass parts of the engine against the attack by the lead.

The path of its development has been an uphill and at time a stormy one. Described for the first time publicly in the Dec. 20 issue of National Petroleum News, the anti-knock compound was made the basis of attack almost from the first time it was offered to the motorist.

The Refiners Oil Co. of Dayton, O., where the research laboratories of General Motors are located, was the first company to offer the Ethyl gasoline to the public at retail. W. E. Talbot, general manager of the company, having read about the new fluid in National Petroleum News, began negotiations with Mr. Midgley which resulted in the Refiners Oil Co. being given the sales rights covering Ohio.

Sales Start in 1923

The Refiners Oil Co. began selling the treated gasoline in January, 1923 the concentrated fluid was sold this company by General Motors at a price to bring the cost of ethylizing of the gasoline to 3 cents a gallon. In October of the same year, General Motors made a contract giving the Standard Oil Co. of Indiana exclusive selling rights for Ethyl gasoline in its territory on the same terms, the contract running for 18 months.

From that time, other licensees came into the market, each with limited contracts covering their marketing territories. Many manufacturing difficulties arose in producing tetra-ethyl lead in quantity and these were worked out by General Motors, Standard of New Jersey and duPont technologists, the duPont company having taken an important part in working out manufacturing processes.

One of the potential obstacles of the company in its purpose to increase the production of tetra-ethyl lead and widen its distribution so as to make it available all over the country, was the limited visible supply of bromine which was needed in the compound in the form of ethylene bromide. The fitting out of the ship "Ethyl" by the duPont company recently at a cost of about $1,000,000 was one of the efforts of the company to obtain a sufficient supply of bromine to assure great quantity production of tetra-ethyl lead, by taking it from seawater.

As before stated, attacks on the lead compound started almost from the time it was offered for sale. The attacks came from certain scientists and from garage men and mechanics. Professor Yandell Henderson of Yale, rated as an expert on poison gases, led the attack with repeated statements that not only was the concentrated tetra-ethyl lead an active and insidious poison, but also that the motor gasoline, treated with about one tenth of one per cent of the fluid, was a menace to the public health.

Claims Exhaust Poisonous

His contention was that a certain amount of lead dust is blown out from the exhaust of every automobile using the fluid in its gasoline; that some of this dust would be breathed in by pedestrians, especially traffic cops who are constantly exposed to exhaust fumes, that these minute quantities of lead breathed in from time to time would accumulate, rather than be thrown off, leading eventually to poisoning and undermining of the health.

Other scientists came forward from time to time to support Dr. Henderson's views and others, disinterested too, upheld the contention of General Motor and Ethyl Gasoline Corp. technologists

to the effects that no harm was to be expected from the effects of the lead thrown off from automobile exhausts. The complaints of the mechanical men came from their belief that Ethyl gasoline tended to burn the valve stems and otherwise injure the engine. This opposition is said to have pretty much died away.

While the chemists and doctors were divided into two camps as to the possibilities of harm to the public from the general use of Ethyl gasoline, fear of the anti-knock fluid and gasoline treated with it was widely aroused by newspaper stories of the poisoning by lead of a number of men who were engaged in the manufacture of tetra-ethyl lead in a laboratory that had been erected by the Standard of New Jersey at Bayway to test out a new method of manufacture.

Five of the men died. Health departments of various cities and states forbade the further sales of Ethyl gasoline in their jurisdictions, failing to make any distinction between the concentrated fluid that had killed the laboratory workers and the fuel containing one part of tetraethyl lead per 1000 parts of gasoline.

The ban in most if not all of these places has now been lifted, but the deaths of the workmen was the signal for another outburst of opposition from the scientists who believe the treated gasoline to be a danger even to health.

In November, following the deaths at Bayway, the Bureau of Mines put out a report on a series of tests that the bureau had been conducting for eight months with animals exposed to the exhaust fumes of an engine using Ethyl gasoline and in a greater concentration than that to which the person on the street would be exposed.

The Bureau of Mines report stated the conclusion that the danger of poisoning of persons from the use Ethyl gasoline in automobiles was exceedingly remote. This report was attacked by two members of the medical staff of Harvard University as being inconclusive and there the matter stood until the announcement from the Ethyl Gasoline Corp. that the distribution of tetra-ethyl lead is indefinitely suspended.

Prairie Shipments are Down in April

TULSA, May 2.—Shipments of the Prairie Pipe Line Co. decreased in April after having recorded increase for the six months preceding. April shipments totalled 4,415,855 barrels as compared with 4,923,929 barrels in March, a decrease of more than 500,000 barrels. The daily average in April was 147,195 barrels as against 158,836 barrels in March.

Shipments for the past six months have been as follows:

Month	Shipments	Daily Av.
November	3,502,938	116,765
December	3,857,754	124,444
January	4,441,290	143,268
February	4,322,556	154,377
March	4,923,929	158,836
April	4,415,855	147,195

Oil Shale District to be Re-Surveyed

WASHINGTON, May 4.—Illegal and fraudulent mineral locations on the lands in the big oil shale district of Garfield county, Colorado, are expected to be turned up in the course of a resurvey of that area by government surveyors. Contract surveyors ran the lines in that county. One of them is known to be no less than three miles out of the way.

The Interior department itself is authority for an announcement of the expectation in respect of attempts to obtain locations on the shale lands. The re-survey will put into question all titles or color of titles in the county. In a statement on the subject the Interior Department said:

Because of the rich deposits of oil shale with a potential output running into a hundred million barrels, the area is completely plastered with numerous mining claims and plans are being made by the General Land Office to enter on the plats only those claims the validity of which is unquestioned.

In the resurvey of the district under a special act of Congress, all claimants will be required to present satisfactory evidence that they have complied with the law not only in making their locations but also in spending the necessary annual assessment for development. Along with the actual surveying of the land in the field an investigation is being conducted into the various placer mining claims to ascertain whether they are meritorious and whether frauds have been committed against the Government.

In view of the magnitude of the interests involved, every effort is being made by the Interior Department to expedite the resurvey as well as protect the interests of the Government. Already six of the eight townships in this district of Colorado have been surveyed. The work upon the two remaining townships will be prosecuted as rapidly as possible during the coming summer. So far the sum of $41,000 has been expended on the resurvey. It is estimated that the cost will exceed $50,000 before the entire eight townships are completed, all of which is attributable to the serious errors or fraud perpetrated when the lands were first surveyed under the old contract system.

Coming Meetings

Kansas Oil Men's Assoc., Broadview Hotel, Wichita, Kan., May 14.

Natural Gas Assoc. and Natural Gas Supply Men, Atlantic City, N. J., May 18, 19, 20, 21.

North Carolina Gasoline and Tire Dealers, Hotel Charlotte, Charlotte, N. C., May 12, to organize state association.

Ohio Petroleum Marketers Assoc., Gibson Hotel, Cincinnati, O., May 14, 15.

Wisconsin Independent Oil Jobbers' Assoc., Oshkosh, Wis., May 20.

National Association of Purchasing Agents, Milwaukee Auditorium, Milwaukee, Wis., May 25 to 28.

Michigan Independent Oil Men's Assoc., Edgewater Club, St. Joseph, Mich., June 25.

Bradford to Hold Big Homecoming in August

BRADFORD, PA., May 2.—Some 20 committees are now at work on plans for the homecoming week, Aug. 9 to 15, at which time will be commemorated in ceremony and pageantry the one hundredth anniversary of the settlement by white people of the present site of Bradford and the fiftieth anniversary of the discovery of oil in the Tuna valley.

Bradford is known throughout the world wherever oil is produced because of the large number of oil men who have gone from Bradford to lead in development. All of them are being invited to return and the local committees are attending to it that everyone is notified.

It is announced that plans are being made in Tulsa for a special train to bring back a host of former Bradford men now living in Oklahoma. Other special trains are planned from Texas and California.

Gilliland to Open Plants in New Mexico Soon

TULSA, May 2.—Gilliland Oil Co. of New Mexico is re-conditioning its refinery at Roswell, recently taken over from the First State Refining Co. The plant is expected to be in operation with a capacity of 500 barrels about May 15, and will manufacture U S. Motor, kerosene and fuel oil for local trade. Crude will be supplied by pipe line and tank car from the Artesia field. At Albuquerque Gilliland's skimming plant now under construction, is expected to be operating about June 15, at 1000-barrel capacity, and will also produce the above mentioned products.

NEW YORK, May 2.—Marland Oil Co. is reported to be negotiating with the Standard Oil Co. of New Jersey to sell upward of 10 million barrels of crude oil from the Marland Limon property in Mexico, to be taken at the rate of 20,000 barrels a day. The Standard, in the event the sale is made, will lay 12 miles of 10-inch line from its station at Cacalilao to the east end of the Marland property.

A. I. M. M. E. Publishes Annual Review

NEW YORK, May 2.—The third annual symposium on the production of petroleum throughout the world has just been published by the American Institute of Mining and Metallurgical Engineers. This symposium brought together by the members of the Petroleum Division of the Institute and presented at the annual meeting in February, 1925, covered the production for 1924.

A careful checking of the estimates given in the symposium for 1923 against the final figures issued by official or governmental agencies during the latter part of the year shows that the preliminary estimates have been essentially correct. The estimates given were within three hundredth's of one per cent of the final and official figures as published by the U. S. Geological Survey in November of 1924.

Timeliness in presentation is of prime importance to the industry using these figures and the ability of the petroleum division of the Institute to present the studied views of leading technologists and geologists in the annual symposium makes this publication one of the most important of the Institute's productions.

In addition to the papers dealing with the developments in 1924, the symposium contains the suggested plan of Henry L. Doherty for the conservation of oil and gas, together with the opinions of leading petroleum men that were elicited when his paper was read at the annual meeting.

Copies of the symposium may be secured through Institute headquarters, 29 West 39th St., New York.

Marketing Summary

Oklahoma-Kansas.—Gasoline slightly firmer at 10¼ to 10½ cents after sagging to 10 cents at end of April. Natural gasoline stronger. Kerosene steady. Gas oil quiet. Fuel oil weaker. Lubes slow in spots, prices unchanged.

North Texas.—Motor gasoline prices decline as buying is slow. Light gasolines are firm. Kerosene slow with lower prices. Fuel oil weaker.

Chicago.—Gasoline slightly firmer. Kerosene steady. Light fuel oils unchanged. Fuel oil weaker.

California.—Gasoline soft.

Gulf Coastal.—Lubes slow because of season.

New York Export.—Inquiries for gasoline and kerosene increase but talk of tank wagon price reduction intimidates buyers; prices steady. Waxes stronger. Cylinder stocks cheaper. Bunker oil 5 cents cheaper. Gas oil quiet.

New Orleans Export.—Gasoline more active. Bunker oil weak. Kerosene and gas oil softer. Zero lubes cheaper. Wax prices higher.

This Issue

Shipments of Tetra-Ethyl Lead Stopped, Standard of Indiana Quits Selling Ethyl Gasoline 17
By Paul Truesdell
Forecast for May in the Oil Business 22
Gasoline Consumption Gains 28 per cent in 29 States 30
Railroads Demand More Revenue, May Mean Higher Rates 31
Internal Revenue Bureau Rules on Gas Tax Expense 31

PRODUCTION NEWS

Weekly Crude Production Estimate 20
Blowouts and Water Smackover Problems 24
By Paul Wagner
Latest Developments at Smackover 26
Rainbow Bend Field Promises High Recovery 33
By D. R. Snow and P. B. Dean
Steel Mills Look for Good Year in Oil Business 40
Oklahoma Production Declining 42
By A. F. Hinton
Production News and Completions 42-48
New Lytton Springs Field 32
By Paul Wagner
Colombia Has Oil When World Needs It 55
By M. A. (Mike) Spellacy
Further Development Indicated in Archer County 66

REFINING NEWS

Centralized Control Cuts Refinery Operating Costs 59
By Paul Truesdell
N. P. N. Weekly Western Refinery Figures 21

NATURAL GASOLINE NEWS

Safety in Gasoline Manufacture a Matter of Education 77
By C. L. Swim

MARKETING NEWS

Mutual Advertising by Independents Now a Fact 27
By Ward K. Halbert
Western Jobber Pleads for Collective Buying Plan 85

MARKETS

Refinery Prices 99-101
Tank Wagon Prices 103
Complete Export Markets 104-105
Crude Oil Prices 106
Refiners' and Compounders' Supply Prices 107
Oil Company Finance 108-110

DEPARTMENT NEWS

Letters to the Editor 52
The Editors' Viewpoint 53
New Station Construction 72
On the Lazy Bench 93

Crude Production by Districts

OKLAHOMA

	May 2	April 25
Cushing	22,150	21,900
Yale	7,100	7,150
Jennings	3,450	3,500
Garber, Billings	9,900	10,100
Tonkawa	61,750	67,450
Blackwell	5,200	5,000
North Okmulgee	15,800	15,900
Burbank, Osage county	58,250	60,000
Osage, outside Burbank	32,450	33,350
Healdton	15,350	15,400
Hewitt	16,050	16,000
Duncan	6,250	6,250
Lyons, Deaner	4,500	4,500
Bristow	34,150	34,200
Wewoka	13,700	13,850
Cromwell	41,900	41,900
Graham	10,200	10,150
Stroud	3,400	3,400
Papoose	24,350	26,200
Watchorn	6,300	7,100
Total	447,350	457,700
Decrease		10,350

KANSAS

Eldorado, Towanda	13,850	13,600
Augusta, Fox Bush	6,000	6,000
Peabody, Elbing	5,400	5,400
Rainbow Bend	11,250	10,050
Florence, Covert	2,150	2,150
Other fields	50,800	50,600
Total	89,450	87,800
Increase		1,650

NORTH LOUISIANA

Homer	6,900	6,950
Haynesville	14,000	14,100
Caddo, light	9,600	9,000
Caddo, heavy	2,150	2,200
De Soto, Red River	4,250	4,200
Elm Grove	750	650
Bellevue	3,850	3,550
Cotton Valley	10,650	10,150
Total	52,150	50,800
Increase		1,350

ARKANSAS

El Dorado	9,200	9,300
Smackover, light	30,000	30,550
Smackover, heavy	312,800	284,850
Nevada	1,600	1,600
Stephens	1,900	1,900
Total	355,500	328,150
Increase		27,350

ROCKY MOUNTAIN

Wyoming

Salt Creek	57,740	59,160
Teapot	1,930	1,775
Big Muddy	3,225	3,325
Grass Creek	4,460	4,225
Elk Basin	920	940
Greybull, etc.	150	130
Rock River	3,225	3,380
Lance Creek	1,775	1,700
Poison Spider	80	85
Osage	400	410
Hamilton Dome	375	680
Mule Creek	1,370	000
Rex Lake	000	75
Lander	285	300
Pilot Butte	000	25
Lost Soldier	3,800	3,700
Ferris	75	80
Total Wyoming	79,810	80,140

Colorado

Craig	780	810
Fort Collins	875	860
Boulder	25	25
Florence	250	245
Rangely	110	100
Tow Creek	150	75
Total Colorado	2,190	2,115

Montana

Cat Creek	3,000	3,050
Kevin-Sunburst	3,500	3,225
Total Montana	6,500	6,275

New Mexico

	May 2	April 25
Artesia	1,100	1,045
Rattlesnake	275	290
Hogback	520	550
Total New Mexico	1,895	1,885

Recapitulation

Wyoming	79,810	80,140
Colorado	2,190	2,115
Montana	6,500	6,275
New Mexico	1,895	1,885
Miscellaneous	200	200
Total	90,595	90,615
Decrease		20

TEXAS AND COASTAL LOUISIANA

Mexia, Richland, Currie	27,870	28,030
Corsicana, Powell	52,700	53,200
Wortham	54,300	56,600
Wichita Falls district	82,145	84,755
Ranger, lime	27,145	27,300
Ranger, sand*	21,440	20,550
W. Texas: Mitchell, Reagan and Scurry counties	23,060	20,875
Panhandle	3,575	2,875
San Antonio, Luling and Mirando	48,320	47,570
Coastal Texas	93,490	90,605
Coastal Louisiana	7,775	7,780
Total	441,820	440,140
Increase		1,680

*Includes Young, Shackelford, Brown, Coleman, Allahan, Palo Pinto and Jack counties.

CALIFORNIA

Santa Fe Springs	49,500	49,000
Long Beach	114,000	113,000
Huntington Beach	43,000	43,000
Torrance	36,000	36,500
Dominguez	42,000	44,500
Rosecrans	18,500	19,000
Other fields	293,000	292,000
Total	596,000	597,000
Decrease		1,000

Crude Production Summary

Eastern	102,000	101,000
Total U. S. Prod.	**2,174,865**	**2,153,205**
Increase		21,660

Refiners Oil Co. Enters Columbus With Stations

DAYTON, O., May 4.—The Refiners Oil Co., with headquarters here, which opened a bulk plant of 75,000 gallon capacity at Columbus last October, has secured seven sites for filling stations, three of which it will complete during the month, and the remaining four within the next two months. Additional stations will be erected at Columbus from time to time as business demands, according to W. E. Talbot, general manager at Dayton. All stations are made of brick and stucco, with double canopy, and conform in other particulars to the company's regular standard type.

The new warehouse at Columbus is made of tile and consists of a two-room office, six-car garage and a complete pumping unit. Three tank trucks, one of which was just recently added, one dray and two salesmen operate at this branch. Additional trucks will be put into service as business warrants, also additional salesmen, Mr. Talbot says.

D. R. Johnson is manager of the Columbus plant. He has been with the company for several years and prior to taking charge at Columbus, was manager at Springfield, O.

CHICAGO, May 1.—The Chicago sales office of the Pure Oil Co., has moved from its location in the McCormick Bldg., on Michigan Ave., to a space in the Central Trust & Savings Bank building nearer the center of the financial district. Since O. H. Muller was called from this territory to Columbus a month ago the Chicago branch has been in charge of R. P. Baker, promoted from the Chicago sales force.

Talking business in front of the Riverside Hotel during the eastern refiners' meeting there. In the foreground is H. E. Shoemaker, Independent Refining Co., Oil City, and P. S. Tarbox of the same company, who is active in the association work. In the background, working away with pencil and paper is H. S. Bell, consulting engineer of New York

National Petroleum News

Compilation Of Mid-Continent Refinery Operations

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118 Refiners Again Reduce Runs and Stocks of Gasoline

TULSA, May 5

IN THE week ended May 1, daily average charges to stills at 118 Mid-Continent refineries with a daily capacity of 434,300 barrels were 307,244 barrels, according to their reports to National Petroleum News. This is a decrease of 4306 barrels in the daily average during the week, and is 10,222 barrels per day below the average throughput of two weeks ago, which was the high mark for the year.

Continuing their gradual decline of recent weeks gasoline stocks decreased 1,574,609 gallons to 78,057,694 gallons. Stocks were lower in all reporting districts, except north Louisiana-Arkansas, where they remained practically stationary. The largest decrease in point of gallonage occurred at 45 Oklahoma plants that reported, where stocks totaled 37,899,729 gallons, a decrease of 824,125 gallons.

Gasoline output was 27,945,106 gallons or 873,955 gallons below that of the previous week. Kansas refiners produced 7,904,347 gallons during the week, an increase of 492,024 gallons. North Louisiana-Arkansas refiners increased their output 5 per cent to 2,250,638 gallons. At Oklahoma plants production was 10,305,537 gallons, a decline of 1,207,755 gallons. Production at Texas plants was 7,484,584 gallons a decline of 265,180 gallons.

Gasoline shipments were 29,519,715 gallons, compared with 31,272,428 gallons in the week ended April 24, and were smaller in all areas except north Louisiana-Arkansas. Oklahoma refiners reduced their shipments almost 10 per cent to 11,129,662 gallons. Shipments from Kansas plants declined 508,785 gallons to 8,244,635 gallons.

Kerosene output totaled 6,724,356 gallons against 6,405,241 gallons the preceding week, but heavier shipments reduced stocks 592,258 gallons to 19,444,120 gallons. With the exception of Kansas shipments increased in all states. Movement from north Texas plants was 2,511,172 gallons, an increase of 888,602 gallons over the previous week.

Production of gas and fuel oil was 40,139,667 gallons or practically the same as last week. Shipments were 32,678,503 gallons compared with 35,722,328 gallons, and stocks increased 7,461,164 gallons Shipments were below production in all states, with the greatest ratio of difference at Kansas plants, where production was 7,896,138 gallons and shipments totaled only 3,887,242 gallons.

At the rate of shipments maintained during the week ended May 1 stocks of gasoline at the 118 reporting plants represented 19 days' supply; kerosene stocks represented 19 days' supply, and gas and fuel oil stocks represented 29 days' supply.

The table covering shipments and production for four weeks ended May 1, shows that during the 28 days gasoline shipments exceded production and stocks declined 5,283,904 gallons.

Summary of Months Production

Production and shipments, all reporting refineries for four weeks ended May 1. Change in stocks figured from April 3

Gasoline	**Gallons**
Production	115,077,066
Shipments	120,360,970
Net change in stocks	—5,283,904
Ratio sales to production	104.6%
Kerosene	**Gallons**
Production	26,621,213
Shipments	27,813,552
Net change in stocks	—1,182,339
Ratio sales to production	104.5%
Gas and Fuel Oils	**Gallons**
Production	157,008,841
Shipments	140,936,084
Net change in stocks	+16,072,757
Ratio sales to production	89.8%

Mid-Continent Refinery Operations Week Ended May 1 (*By Special Telegraph Service*)

	Kansas	%Change Previous Week	Oklahoma	%Change Previous Week	No. & Cent. Texas	%Change Previous Week	No. La.-Ark.	%Change Previous Week	Total	%Change Previous Week	Totals Week Ended Apr. 3
No. of Plants	21		45		38		14		118		118
Da. Still Cap. (bbl.)	95,700		154,400		133,300		50,900		434,300		434,300
Da. Av. Crude Run	55,101		91,187		71,550		38,688		256,526		240,540
Da. Av. Other Oils	19,240		12,654		14,569		4,255		50,718		45,025
Da. Av. Total to Stills	74,341	+ 2.6	103,841	— 4.8	86,119	+ 0.3	42,943	— 2.7	307,244	— 1.4	285,565
GASOLINE—Gallons											
Stocks April 24	20,960,012		38,723,854		15,814,039		4,134,398		79,632,303		85,060,895
Prod. 4-24 to 5-1	7,904,347	+ 6.6	10,305,537	—10.5	7,484,584	— 3.4	2,250,638	+ 5.0	27,945,106	— 3.0	26,709,756
Ship. 4-24 to 5-1	8,244,635	— 5.8	11,129,662	— 9.8	7,926,216	— 1.5	2,219,202	+ 4.0	29,519,715	— 5.6	28,429,054
Stocks May 1	20,619,724	— 1.6	37,899,729	— 2.1	15,372,407	— 2.8	4,165,834	+ 0.8	78,057,694	— 2.0	83,341,598
Ratio Sales to Prod.	104.3%		108.0%		105.9%		98.6%		105.6%		106.4%
KEROSENE—Gallons											
Stocks April 24	4,985,592		9,273,113		5,208,421		569,252		20,036,378		20,480,463
Prod. 4-24 to 5-1	1,704,725	— 4.3	2,384,030	+ 2.5	2,224,983	+12.8	410,620	+25.3	6,724,358	+5.0	5,846,692
Ship. 4-24 to 5-1	1,686,189	—12.7	2,694,773	+ 2.8	2,511,172	+54.8	424,482	+11.5	7,316,616	+11.6	5,690,696
Stocks May 1	5,004,128	+ 0.4	8,962,370	— 3.4	4,922,232	— 5.5	555,390	— 2.4	19,444,120	— 3.0	20,636,459
Ratio Sales to Prod.	98.9%		113.0%		112.9%		10.34%		108.8%		97.3%
GAS AND FUEL OILS—Gallons											
Stocks April 24	14,116,078		49,664,634		47,019,173		16,015,656		126,815,541		117,855,719
Prod. 4-24 to 5-1	7,846,138	— 9.0	11,453,535	+ 3.0	11,844,677	— 0.8	8,995,317	+ 4.7	40,139,667	— 0.4	38,683,739
Ship. 4-24 to 5-1	3,887,242	—50.1	10,244,855	—12.5	10,981,387	+ 0.1	7,565,019	+44.1	32,678,503	— 8.5	38,335,510
Stocks May 1	18,074,974	+28.0	50,873,314	+ 2.4	47,882,463	+ 1.8	17,445,954	+ 8.9	134,276,705	+ 5.9	118,203,948
Ratio Sales to Prod.	49.5%		89.4%		92.7%		84.1%		81.4%		99.1%

Crude Markets Firm Despite Smackover

Effect of the flood of heavy oil from Smackover deep sand already discounted, and lighter grades continue strong. Refined markets holding steady.

Mid-Continent Refinery Market

MID-CONTINENT refinery markets are in a pivotal position from which they could move in either direction with very little impetus. Gasoline stocks present less than three weeks supply at the current rate of shipment from Independent plants in this area as compared with nearly two months supply at this time a year ago.

If weather conditions in Indiana territory are as good in May as they have been in April, domestic business will undoubtedly be reasonably good, even though jobbers continue to follow their present policy of buying only for current needs. It must be remembered that the refiners have a background of U. S. Motor business for the next three weeks as a result of the large 30 day order placed by Standard of Jersey.

Given good weather, the latter part of May markets may improve very much wiping out any sags which might come in the early part of the month. With bad weather and no extraordinary business in May, markets probably would be draggy with a tendency to softness.

With the probability of a growing competition from Smackover crude, fuel oil is not likely to show any extraordinary strength during May.—J. C. C.

Western Pennsylvania Refinery Market

STEADY to firm conditions are expected in the northwestern Pennsylvania refinery gasoline market during May. Barring a prolonged cold spell in May, gasoline trade should maintain the high rate established in April. Prices probably will be steady because at present gasoline production seems to be keeping pace with the increased consumption. Any break in the Mid-Continent, however, would be reflected immediately in Pennsylvania prices. Also, any strength that may develop there would be reflected.

The position of the Pennsylvania gasoline market this year is better than in either 1923 or 1924. There probably will be less competition for trade in New York state and central Pennsylvania from the Atlantic seaboard plants which in the last two summers pushed large quantities of California gasoline into the territory normally served mostly by Pennsylvania Independent refineries.

Lubricating oils should accumulate strength when the extent of the 1925 automobile requirements is realized. Cylinder stocks at present have some inertia which must be overcome before any enhancement in values may be expected. Neutrals early this week appeared to be in slightly better position. After weeks of dullness in which prices have gradually declined, firmness was evident and prices were more uniform with practically all weak goods off the market. Paraffin wax has halted after an advance of ½ cent during the latter half of April and should hold the present level because the amount of wax available to the spot market over the next few months will not be large.

Light fuel oil is in better demand for cracking stills and should remain firm if the gasoline market holds up. Demand has been comparatively light for the heavier fuels and probably will continue so throughout because of the slackness at industrial plants using the heavier oil. Kerosene is weak and except for occasional spurts may continue dull over the month. Only a large amount of export trading, it seems at present, can revive kerosene at this time.—R. B. Stafford.

Chicago Market

Signs and omens native to the regions of consumption all indicate favorable for May business in gasoline and kerosene. Lubricating oil business also promises to be good. So from the viewpoint of a jobber in Standard Oil Co. of Indiana territory, prospects are fine for a profitable month, for margins are as wide as anyone could wish and volume increasing every day. In a measure this prosperity will be shared with the refiners and carload marketers, but not equally.

Apparently no big profits are going to be made in May by refiners and as for the marketers, they have less than their usual chance to benefit with market fluctuations. Steady business in great volume will pay the jobber, but prices can not get much lower and allow the refiner any gain for his toil at present crude prices, and the marketer shares the refiner's ills. Business promises to ride on an even keel for a month with the jobber getting a little the best of the spread.

Speculation just now is unusually hazardous. Gasoline volume is sure to increase over the months if the weather stays good but the weather is too uncertain and too powerful an influence to be trifled with. Nobody wants to "buy long" on gasoline in front of a possible wet season, and besides there is plenty of gasoline available. On the other hand nothing is likely to be gained by "selling short" on gasoline for it is already weak at 10¼ cents and major interests have indicated that they do not propose to let the spot price go under a dime.

The best than can be expected of gasoline over May is a slowly strengthening market as weather improves demand over a gradually widening area. Refinery capacity is too large ever to let the price skyrocket so long as crude is available. The worst prospect is an already predicted crude cut which, after all, will mean a general revision all the way to the consumer with profits divided more equally perhaps in the readjustment. So in this section it is not a thing dreaded at all.

Kerosene prices can not improve much at the refinery for, although the plowing season is only started, the rural jobbers are very largely stocked for the spring. Marketers think 4¾ cents is a good price for refined oil over May. Stove distillate likely will diminish more in volume than price for it it has already discounted the absence of summer demand and the price represents the cost of manufacture. Gas oil in May will confront a weak demand like distillate, at a slightly lower price, for there promises to be no scramble for material to crack.

Whether the rumors of salt water invasion of Smackover are true or false, they do not mean much of importance to this next month's markets. However the flush production at Smackover does have an immediate influence. It might even affect gasoline prices, for as it weakens refinery fuel it throws more of the cost of refinery operation on gasoline, making the skimmer ask more for his gasoline in order to make his business pay. This however is of minor importance and although a ballast to the market, is by no means bullish news.—Ward K. Halbert.

Mid-Continent Production

THE Mid-Continent crude situation May 1 shows but little change as compared with a month ago, although what changes there are to record are generally favorable.

The crude market probably is somewhat stronger than it was at the beginning of April, due principally to declines in high grade crude production and a lack of discoveries of important new fields. The hugh production developed at Smackover undoubtedly has had a depressing effect on the crude market, and apparently is the only factor that has prevented a decidedly bullish tendency.

The feeling now is that the Smackover menace will soon be but a memory, and it begins to look as though we will go into the summer season with crude prospects brighter than for several years past.

April brought forth the discovery of the new deep sand at Garber, a find that may result in bringing considerable quantities of high gravity flush crude on the market, and of course there is always the possibility that another such find or even a more important one may be recorded during May. From present indications, however, there is no reason to predict such an occurrence.

Garber's new crude will not become a factor until well in mid-summer and unless other new fields are discovered in the meantime, this crude probably will be needed to bolster up the state's declining output.

Oklahoma production at the beginning of May was about 7,000 barrels a day less than it was April 1 and it starts the new month with indications all pointing toward a continuation of the decline, at least during the ensuing 30 days.

There were fluctuations in production during April, increases having been recorded during two of the weeks of that month, but these gains were only temporary and were followed by sharper declines. It is probably that May will record a similar production performance, with possibly a more decided downward trend.

Tonkawa, which declined about 14,000 barrels in production during April, seems likely to decline still further in May, although perhaps at not so rapid a rate.

Burbank will decline slowly and will likely be down to about 57,500 barrels at the end of May as compared with 58,200 barrels at present.

Cromwell was producing about 5,000 barrels more at the end of April than at the start but from present indications will decline during May and will probably be 3,000 barrels under its present output at the end of that month.

Papoose and Wewoka are likely to show gains in production during May, especially the latter. Both these fields are still spreading out, Papoose to the east and Wewoka to the south and west.

In Kansas, the Rainbow Bend area declined during April, but started increasing again around May, and, as there are a number of wells due to be drilled in there soon, will probably increase considerably in the next 30 days. Kansas as a whole is on a general upward trend in production, and it is probable this will continue during the coming month.—A. F. Hinton.

Texas-Louisiana-Arkansas Production

Increasing production from the Smakover deep pay will continue in May to the limit of facilities for handling. The fact that present potential production is considerably more than the actual will not prevent increases in daily averages for the district. New wells must be flowed under choking-down practice; and where the declines of older production are insufficient to take up the slack a gradual edging up in daily averages will result, the flow going into earthen pits.

The number of completions in the Smackover field in May will reach large enough proportions that it is not improbable deep pay wells in the heavy oil district will contribute as much as 300,000 barrels daily.

It will be necessary to store vast quantities of this oil in earthen storage pits, because of the lack of outgoing facilities to cope with such a situation, but pipeline construction work of the Gulf and Standard companies will provide additional outlets for some of the oil.

In Louisiana, the Triangle Drilling Co.'s No. 1 Cox test, in 7-19-5, southeast of Homer, Claiborne parish, is drilling below 2300 feet for the Blossom sand. An earlier test of the J. P. Evans et al in 5-19-5 had a gas show in the Blossom. Neither test showed for anything in the higher Nacatoch horizon, but formations in the Triangle well are checking about 50 feet higher than the highest of earlier failures. The existence of structure has been shown and possibilities exist of opening a new field. The Nacatoch and Blossom sands both produce at Homer, at 1180 and 2100 feet, respectively; and Haynesville development at 2800 feet was in the Blossom, the apparent discrepancies in depth being accounted for by elevations in their relations to the various areas.

With the movement of crude through the Humble pipeline out of the Big Lake field, in Reagan county, which is now an accomplished fact, the west Texas area comes into more important consideration as a general economic influence. The line will handle up to about 20,000 barrels daily.

Except for sporadic increases in individual small fields, and barring new discoveries that are not on the cards, the month of May will show only slight increases in Texas daily averages—Paul Wagner.

California Production

The California operating companies are preparing to store an average of one million barrels a month of overall stocks for the remainder of 1925 and perhaps longer. At the end of the year it may be expected that storage stocks will have reached a level at least 10 million to 12 million barrels greater than prevailed at the beginning of 1925.

Although it is not on the cards that any single field will add great quantities of flush oil to be absorbed, Rosecrans may be expected to increase its production above the present level of roundly 19,000 barrels daily. Dominguez will not drop off materially, and the possible development of a deeper pay zone would result in some increases.

Nominal gains in production in old and partially developed fields will continue. As a result there will probably be small gains of miscellaneous character in the general Pacific coast territory. It is possible because of these gains that additional heavy oil production will be shut in this summer and that because of this policy the actual production figures for California will not be changed materially for several months. There has been shut in for several months as much as 27,000 daily potential production from settled wells. Should the emergency require it, a total of fully 100,000 barrels of old settled production is always possible to be shut in.—Paul Wagner.

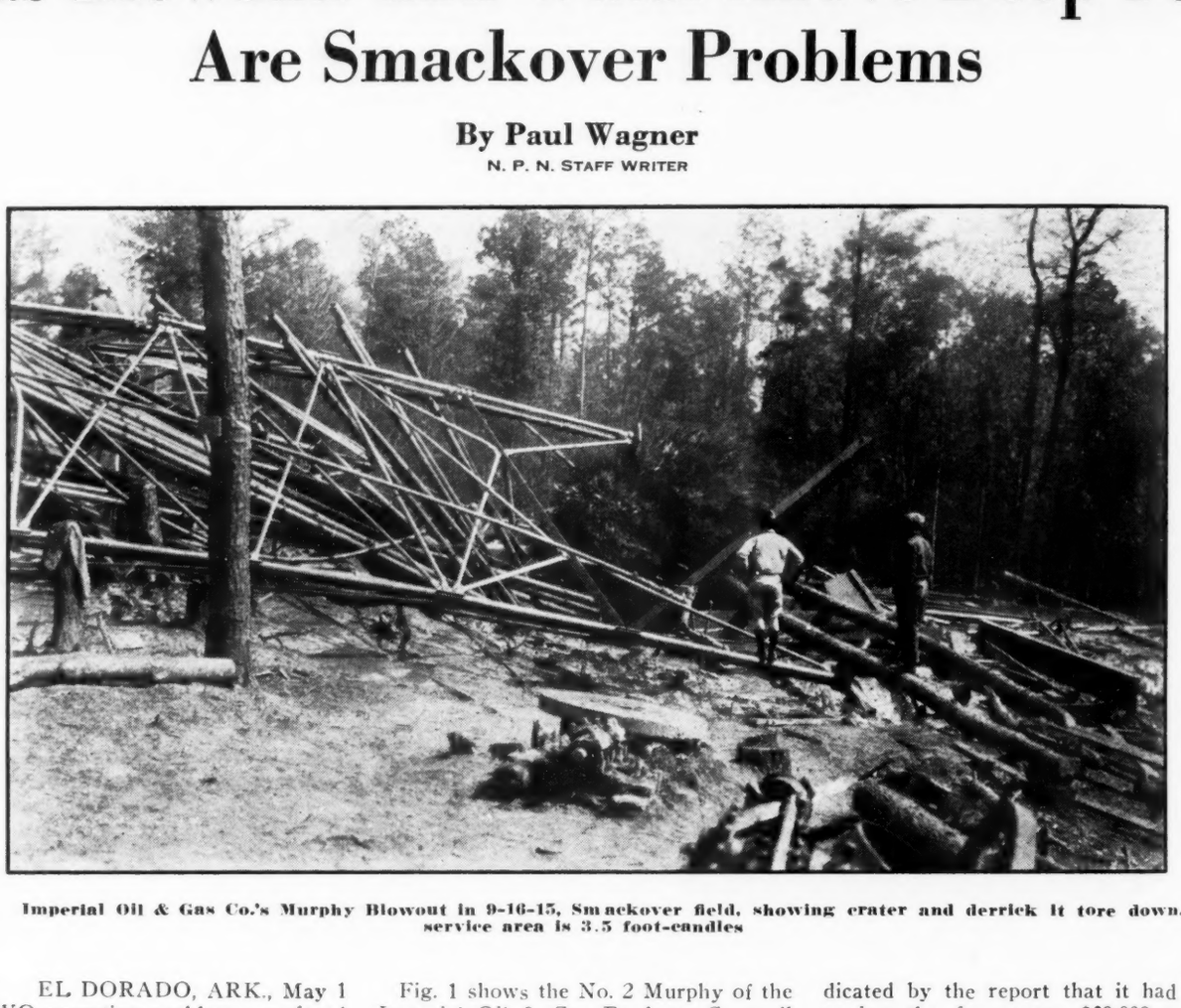
Crown Refinery to Re-Open

PASADENA, TEX.—The 3000-barrel refinery of the Crown Oil & Refining Co. of this city, which has been shut down the past 18 months, will resume operations on May 1. A force of 50 men has been overhauling the plant and putting it into shape the past month for the reopening.

DES MOINES, May 1.—The Manhattan Oil Co. of Iowa has recently purchased the King City Oil Co., of King City, Ia., and the Bassett Oil Co. of Bassett, Ia., and the Chillicothe Oil Co., of Chillicothe, Mo. The Bassett Oil Co., also has stations in Missouri, at Osborne and Kidder.

Gas Blowouts and Water Above Deep Pay Are Smackover Problems

By Paul Wagner
N. P. N. STAFF WRITER



Imperial Oil & Gas Co.'s Murphy Blowout in 9-16-15, Smackover field, showing crater and derrick it tore down. service area is 3.5 foot-candles

EL DORADO, ARK., May 1 TWO operating problems are faced in the development of the present deep pay in the Smackover heavy district. These are (1)—the finishing of wells so that they will produce clear oil, and (2)—the avoidance of gas blowouts.

For the present, at least, water percentages coming from flowing wells reflect a condition resulting from the setting and cementing of casing too high above the 2400-foot Marlbrook oil pay. This condition can be largely offset by shutting in the well, lubricating the hole with heavy mud to kill off gas and then setting smaller casing inside the existing string. Procedure then is to drill in properly at the right level.

The uncertainty of finding a safe casing seat in gumbo, or hard shale, above the Marlbrook pay, is responsible for water from the overlying horizon being produced with the oil. A gas sand that also overlies the Marlbrook at approximately the water horizon also gives trouble in completing wells and has been responsible for some of the blowouts encountered in the field.

When a blowout occurs at or immediately above the Marlbrook level, the procedure of dealing with it is first a case of fighting the situation with men and swinging the Christmas-tree fittings into position over the well.

Fig. 1 shows the No. 2 Murphy of the Imperial Oil & Gas Products Co. well after a water flow and blowout that had caused the steel derrick to go down. As may be seen in the foreground, the rotary table was dragged off and saved. The blowout broke off the Christmas-tree connections and the well was flowing "wild" at the time the picture was taken.

After the crater had quieted down it was possible to anchor the 6-inch and 10-inch casing strings but "cratering" continues outside the casing.

When the Imperial's well blew out it was responsible for disastrous results in the nearby A-1 Murphy well of the Lion Oil & Refining Co., which for more than a year had been producing gas from the 2200-foot Primm zone, at 2272 feet. The value of the Lion's gasser is indicated by the report that it had been paying the fee owner $30,000 a year gas royalty.

In the case of the Lion's gasser, the first appearance of a blowout was in an abandoned "rathole" used to put the "Kelley" joint in during the drilling of the well, a year or more ago. Gas coming up from the deeper levels undoubtedly found its outlet at this point, under sufficient pressure to make a crater between 30 and 40 feet across.

Causes of Blowouts

Two or three causes are responsible for blowouts, which may occur at any point above the Marlbrook oil pay where unconsolidated formations exist to form pockets for high pressure gas. Whether a blowout occurs at the level immediately above the Marlbrook pay or at shallower levels the hazard is similar in drilling practice.

A test well belonging to Keen & Woolf, which is located between the Imperial and Lion craters, was saved because of its being shut in after gas had appeared through a split in the casing between the 10-inch and the 6-inch.

Operators in the field say that the opening up of the Keen & Woolf well would relieve the pressure on the Imperial and Lion craters, transferring the "boiling up" condition to the third well,

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SHREVEPORT, May 2.—Smackover deep sand production on May 2 had reached 299,000 barrels daily and the combination of light and heavy oil in the district as a whole was expected to reach 400,000 barrels Monday. Heavy oil from the upper zone approximates 55,000 barrels and light oil from the Louann division about 32,000 barrels daily.

which would then take on a similar aspect.

In some cases, at least, the gas hazard reflects a condition existing prior to the discovery of the 2100-foot original oil pay of the Smackover field. The possibilities of oil production in this area were first indicated by the Murphy test of the old Oil Operators Trust, which was drilled in 1922 in the Norphlet section of the present field.

That test blew out and formed the largest crater ever known at Smackover. It died down long ago, but it was responsible for gas migrating in large quantities to shallow levels and in many places forming pockets in the 300-foot and 900-foot water sands found in the field.

After the test of the Oil Operators Trust had blown out, the V. K. F. Drilling Co. drilled the "discovery" well of the 2000-foot Nacatoch pay in 1922, near the northeast edge of the field. Development then proceeded, with frequent blowouts attending operations in parts of the general area.

In completing the 2000-foot wells, contractors and drillers experienced troubles at the shallower levels similar to the hazards still found. The original Murphy crater undoubtedly was the primary influence in this regard, but subsequent craters in the time of the Nacatoch development probably aggravated the situation.

Gas In Primm Zone

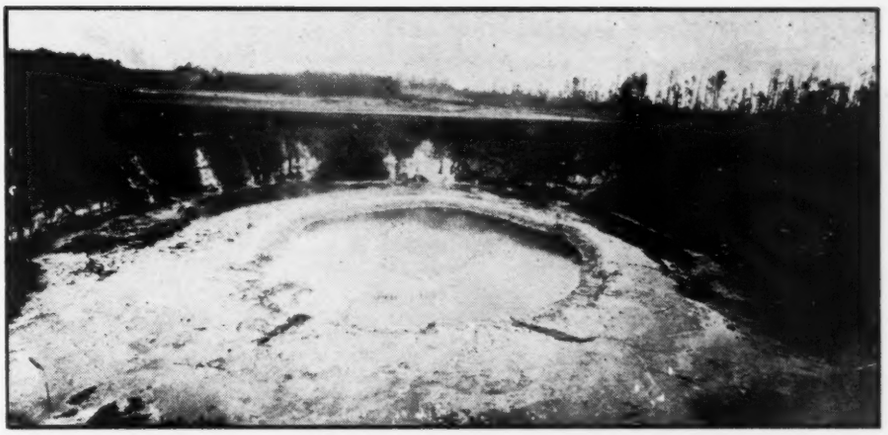
Careful drilling, however, minimized the number of Nacatoch completions made without blowouts. Later, gas development was carried below the Nacatoch oil pay to the Primm zone, found at and below 2200 feet. Deep gas wells were properly made at this level in 1923 and 1924, prior to the still deeper Marlbrook oil development which was indicated toward the end of last year.

The Lion's crater well, hereinbefore referred to, was one such full source supplying the natural gas company serving El Dorado. Other wells at this level served a similar purpose and provided fuel for drilling purposes in the field.

In drilling through this 2200-foot gas sand to reach the 2400-foot oil pay, care is taken to keep the hole full of heavy rotary mud to prevent blowouts. This, however, has not been always fully accomplished. There is enough fresh water available in the field for boiler purposes but not always enough for mixing rotary mud. Under such a condition it has been at times a practice to make up slush with salt water.

Brine does not thicken up well in mud-making practice, resulting in the necessity of drilling with thin slush. A recognized condition in field practice is that the thinner the mud the faster drilling time can be made; the thicker the mud the greater safety from blowouts.

The use of salt water in mixing cement used in setting casing probably has had an influence in getting unsatisfactory results. When casing is set it is desirable to put enough cement into the hole, around back of the casing and above the gas sand, to thoroughly confine the gas to its own horizon. When a thorough seal is not accomplished hazards appear.



(Photo courtesy Earle Deane, El Dorado)

The original Murphy crater of Oil Operators Trust, which in 1922 pointed the way to original Smackover development, which since that time has provided part of the hazard of gas blowouts in the upper sands

It is possible that two conditions have worked their influence in different instances. One may have been that the best results in cementing operations failed because of using salt water in mixing practice. A still more likely condition may have been that owners of wells put in ample cement but that cavities had occurred in individual cases. Such cavities might have prevented enough cement being properly placed above the gas sand.

In the latter instance, had agitation set up while the well was dormant in the cementing-setting period gas would come up outside the casing and out into places of least resistance. Its effect could become operative in any unconsolidated formations as high up as the 300-foot and 900-foot water sands; the gas making its appearance in the form of blowouts in adjacent drilling wells and causing craters.

When blowouts occur at or above the deep Marlbrook pay in tests good for oil production the wells are finished without setting liner and they are allowed to produce through chokers. In some cases, the flows consist of oil, water and big gas, showing the casing was set too high.

If possible to shut off the water and gas above the oil pay it would be good practice to adopt a policy of shutting in the well, lubricating with mud to kill off gas and then setting smaller casing at the right level in the Marlbrook pay.

Examples of wells, finished in this manner are the No. 5 Hayes of the Marine Oil Co., which was killed to set 4½-inch after it had made 90 per cent salt water out of total flow of 10,000 barrels of fluid; Roxana Petroleum Corp's. No. 3 Umstead; and Giles & Tate (Shreveport Oil Corp.) No. 1 Umsted. Gulf Refining Co. of Louisiana had a salt water well at 2338 feet in its No. 6 B. Goodwin, but after setting 4½-inch at 2383 feet the well was making 4000 barrels daily with only 1 per cent of water and 2 per cent b. s.

The No. 1 Murphy well of Sam Cook et al, on a 5-acre tract in 9-16-15, used 10 to 6-inch swedge with drill pipe run through it for the purpose of pumping mud into the hole and sealing off 10-inch casing at the top, the purpose being to force mud into the sand from which gas is coming. Catching the flow of gas at a lull between "heads," the method was successful.

Navy Asks Bids for Motor Gasoline on Pacific

By Special Correspondent

WASHINGTON, May 4.—The navy department has called for tenders to furnish motor gasoline and domestic aviation gasoline at Pacific coast and Hawaiian stations, the bids to be opened at noon May 18. They are to be in accordance with the specifications dated Dec. 1, 1924, the date of the latest edition of the navy specifications and specifications for the making of tests. The bids are for the last half of the year.

The points at which large quantities of motor gasoline are to be delivered are Puget Sound, 120,000 gallons; at San Francisco, in tank cars, 150,000 gallons; San Diego, 130,000 gallons; San Pedro, 200,000; and Pearl Harbor, 100,000.

The points where large deliveries of aviation gasoline are to be made are: San Diego, 200,000 gallons; Pearl Harbor, 100,000; San Pedro, 150,000.

Bids are also to be received for 25,000 gallons of engine distillate at Pearl Harbor and 2,500 gallons at San Francisco.

Smackover District Output Nears 400,000-Barrel Figure

By Special Correspondent

EL DORADO ARK., May 2

SMACKOVER production, which has been mounting steadily since the deep sand boom got well under way about sixty days ago, has established a new high record of 365,635 barrels per day. However, records are as nothing at Smackover, where a new one is established each day.

As of today, the deep sand is producing a total of 276,585 barrels per day from 110 active wells an average of 2514 barrels per well per day. A total of 129 wells have been completed in the deep sand, but 19 of them have ceased flowing. The beginning of the second phase of the boom is at hand, as pumping rigs are being built on a number of the wells which have quit flowing.

A check-up of the field, made on May 1, yielded the following data regarding current production:

Smackover Deep Sand

Gulf Refining Co.	35,000
Ohio Oil Co.	28,500
Imperial Oil & Gas Co.	21,000
Amerada Petroleum Corp.	15,375
Roxana Petroleum Corp.	13,900
Standard Oil Co.	13,100
Sunny Jim Oil Co.	11,800
George & Jones	10,500
Humble Oil & Refining Co.	9,835
Murdock et al	9,500
Marine Oil Co.	9,000
Lion Oil & Refining Co.	8,815
Mazda Oil Corp.	8,500
Hickman et al	7,350
The Texas Co.	6,800
S. Cook Syndicate	6,000
Natural Gas & Petroleum Corp.	6,000
O. G. Murphy et al	5,700
Woodley Petroleum Co.	5,000
Coates & Sowell	4,400
Unity Petroleum Co.	4,300
Sun Co.	4,200
Hollifield et al	3,500
Shreveport Oil Corp.	3,200
Rogers et al	3,000
Kinnebrew et al	2,500
Ramage et al	2,500
Pure Oil Co.	2,250
Leon Syndicate	2,200
Simms Oil Co.	2,000
Clark & Melat	1,500
Crawford & Sebastian	1,400
Houston Oil Co.	1,400
Sam Richardson & Co.	1,165
Crusader Oil Producing Co.	940
Federal Petroleum Co.	820
El Dorado Union Oil Co.	800
Bailey & Trimble	800
Nye Wilson	725
Healey Consolidated Oil Co.	625
United Central Oil Corp.	285
J. W. Clark	200
Ray Drilling Co.	200
Total,	
Heavy oil from deep sand	276,585
Heavy oil from shallow sand	56,000
Light oil from west field	33,050
Grand Total, Smackover district	365,635

Adding to Facilities

In addition to the trunk pipe lines under construction by the Standard and Gulf companies, the Amerada, Texas, Crusader, Gulf, and Woodley companies are making extensive additions to their gathering line and loading rack facilities. The Amerada Petroleum Corp. is laying a six-inch line from its Giller Lease, in 15-16-15, to its new earthen storage at Quinn, in section 36-16-15. The Gulf Refining Co. is laying seven miles of six-inch line from the heart of the deep sand area, in 9-16-15, to its Perry Tank Farm, in 10-17-15. The Crusader Pipe Line is laying a number of extensions to its six-inch gathering system; and a number of four-inch lines are being layed by the different companies at interest. Excavation of earthen storage continues at break-neck pace.

The proven area of the deep sand was extended more than a half mile north northeast and slightly beyond the boundary of the shallow production by the completion on Tuesday of this week of the Standard Oil Co.'s No. 2 Powell, located near the center of 34-15-15, Ouachita county, which is making 500 barrels of pipe line oil per day from 13 feet of sand at a total depth of 2382 feet. The Standard also extended the eastern boundary of the deep sand production by about a quarter of a mile by bringing in two 2500-barrel wells on its Alphin lease, in the southeast quarter of the northeast quarter of 3-16-15.

These two were out for a stroll when the eastern refiners were meeting at Cambridge Springs, April 22 and 23. They are H. E. Shoemaker, Independent Refining Co., Oil City, and James D. Berry of James B. Berry's Sons Co., Oil City.

Second Well Completed in Urania Field

HOUSTON, May 1.—The second well in the Urania field, La Salle parish, Louisiana, began making oil at 4 p. m., April 30, when it showed for 125 barrels in 10 hours. Later in the following day the well was reported making more than 500 barrels initial production, four feet in sand at 1513 feet.

George Zeigan and others drilled the second well on Urania Lumber lands, in 8-110-2E, as a west offset to the "discovery" well of the Urania Petroleum Co., Ltd., of London, whose Louisiana manager is Anthony Gibbons of Monroe.

Urania Petroleum's "discovery" has remained shut in since its original show several weeks ago, when it was estimated variously good for 200 to 800 barrels. Besides sanding up at the time of completion a factor working to keep the "discovery" well shut down has been litigation affecting it.

The oil flow in the second well is reported to have been accompanied by about 10 per cent water, 2 per cent b. s. and 4 per cent sand.

Cleveland Stock Market

	Par	May 4 Bid	Asked	Last Sale
Canfield Oil Co.	$100	111	.....	125
do pfd	100	.....	100	95
Fred G. Clark Co.	10	1	4½	4½
National Refin. Co.	25	37⅝	40	x38
do pfd	100	.....	.....	.....
Paragon Refin. Co.	25	6⅞	8⅞	7¼
do pfd	100	58	.....	63

x—Ex dividend

Refund Excess Fees

OMAHA, May 4.—A recent order of the supreme court of Nebraska has provided for the distribution of $61,000 among the jobbers of the state. The money is an accumulation of oil inspection fees, in excess of what the court has ruled is enough. The court ruled that 1½ cents per barrel was reasonable. The Omaha National Bank is mailing out the checks. The Nebraska Independent Oil Men's Association conducted the contest for refund of excessive inspection charges.

BUYERS' GUIDE FOR OIL SHOPPERS

Whenever you do not know where to buy a particular petroleum product, just turn to pages 50-51. Tell them where you got their name.

Mutual Advertising is Accomplished After Years of Campaigning

By Ward K. Halbert

N P. N. STAFF WRITER

CHICAGO, May 1

UNIFORM gasoline, cut to U. S. Motor specification or better by Independent refiners, will be placed on the market this summer at hundreds of pumps of Independent jobbers over the country under the name of "Red Hat" gasoline.

Canteen globes, target signs, pump lights and window displays will show the trade-mark printed on this page. For the first time in the history of oil business a trade association has developed enough influence to offer through its members a specific product for a specific purpose

For years the word "Uniformity" has been a jinx to the Independent branch of the oil business. Big institutions in the industry have long been able to offer the public a uniform, trademarked brand of motor fuel, literally purchasable from border to border of the country. Possibly Red Crown gasoline, as it is sold by the several Standard Oil companies, is no more uniform than the general run of 58-60 gasoline; but it is uniform enough to meet tourists' requirements.

The competitive grade of gasoline sold by Independent oil men the country over also is near enough the same product to meet the requirements of tourists, but it has had a different name in every town and the tourists could not tell what it was. Independents with operations limited to small territories have watched the tourist business go to trademarked brands for years, and they have watched the volume of tourist business increase each year. Two years ago they got tired of it, and through their trade association, organized to cope with the situation. Now the Independent Oil Men of America have their hat in the ring. That is what the trademark means.

Adoption of Red Hat, as the name of the Independents' uniform brand, was voted at the annual Industrial Conference of the National Petroleum Marketers' Association this spring in Chicago. The I. O. M. A. is an organization within the N. P. M. A., governed by a board of trustees and devoted entirely to the plan of joint advertising for Independents. The legal department of the N. P. M. A. has attended to the copyrighting of a complete "hat series" of trademarks for gasoline. Oil men who want to throw away their present trademarks and adopt the hat series for all grades of motor fuel are permitted to do so, but for the present only a competitive grade of gasoline is being standardized to uniformity and trademarked.

Big Independent jobbers who handle several grades of gasoline and advertise them are preparing to re-name their 58-60 and call it Red Hat. The more extensively advertised premium grades will continue to sell under their local names. It was the original plan of the I. O. M. A. not to destroy any popular trademark or brand. Most of them apply to premium products anyway.

A great many small members of the N. P. M. A. who handle only one grade of gasoline (and it a competitive grade) are making arrangements to call it Red Hat if it has not already been named. If it has a name already popular, the plan is to put in a Red Hat pump anyway, to attract the tourist business. In this way Red Hat is to be made unanimous and uniform from coast to coast.

N.P.M.A. newly adopted trademark

In order to complete this service, "Emblem Motor Oils" in five grades will be sold at I. O. M. A. members' stations before the year is gone. This program is not so far along as the Red Hat movement, but it is well under way. An I. O. M. A. committee consisting of J. L. Murray, Corn Belt Oil Co., Bloomington, Ill.; W. A. McMillan, Lindsay-McMillan Co., Milwaukee; Jack Nourse, Nourse Oil Co., Kansas City, and E. M. Keitel, Columbia Oil Co., Inc., St. Louis, have prepared uniform specifications for these five grades for adoption by the Independents.

Not Playing Favorites

The purposes of this standardization is that each member of the organization may sell a grade of medium oil (for instance) that will be the same to the motorist as all the medium oils sold by all other members. The committee has named five motor oils a light, a light-medium, a medium, a heavy and an extra-heavy, which can be sold under any brand used by the Independent jobbers today; and any number of samples of any one grade will be of uniform viscosity at 210 degrees F. That temperature was selected because it is considered the working temperature of a gasoline motor. There are a great many interesting aspects of the plan but the specifications have not been adopted yet and, until they have been, the details are unimportant.

Both Red Hat gasoline and Emblem motor oils will be given national advertising under the publicity program of the Independents which was financed overwhelmingly at the spring conference. The mutual advertising campaign for Independents which L. V. Nicholas, president of the N. P. M. A., started campaigning for four years ago, has been discussed many times in National Petroleum News. But the fact that it is thoroughly financed and ready to start in a national way is a development worthy of note.

Busy on the Publicity

Just at present this publicity campaign is keeping the whole N. P. M. A. organization busy, as well as several advertising men. Glen Buck, a Chicago advertising man, is working on copy for the big spread in popular publications this summer. Ray Shaw, formerly one of the publishers of Oil News now in the advertising business in Chicago, is using his technical skill in laying out copy for the trade press. Sam Hunt, the new advertising manager of the I O. M. A. is busy with plans for direct mail, and rural newspaper "ads" for the hook-up of the individual members with the national program.

Between the middle and the last of June, before the coming of the midsummer tourists to the cool north woods, the I. O. M. A. advertising will be under way. Oil men have talked about this for a long time. Groups of other industries actually have done the thing, but this is to be the oil industry's first step into constructive mutual publicity. Naturally the whole industry is watching results with the keenest of interest. The first thing to be featured in the copy will be the "Insignia of Independence," the red spread-eagle.

In one important respect the publicity campaign of the I. O. M. A. is a new thing entirely, a thing never tried by any industry before. The oil men are not trying to advertise oil and gasoline they are starting to impress the public with an abstract principle—the principle of basic competition and real independence in the oil business. Of course the oil men mean to sell more goods by reason of the campaign. They know it will pay for itself or they would not spend their money for it. The first thing they have to do, never-

theless is to prove their existence to the public.

A sweeping success for the Independents' advertising campaign will not make one more competitor or one less competitor for the big companies. It might make them buy a little more advertising which is no hardship. But there is one effect it is sure to have. It will be equal to a public roll-call of Independent oil men and that will be worth a great deal to the big companies. When the public learns that there is an Independent branch to the oil industry, it no longer will be "good politics" for a candidate to stand before his voters and say the oil companies are "all in kerhoots."

The false assertion that the oil industry is all jointly owned and managed and manipulated is a scandal in the ears of the public. A great many people believe it and a few efforts to talk about oil to somebody in another business will prove that misconception is general. Furthermore the public is not to blame for it. Their ideas come from the place a great many wrong ideas come from—the flamboyant politician.

Although the advertising program of the Independents in national publications has been postponed longer than was meant at first when the National Petroleum Marketers Association organized its advertising unit, the I. O. M A., nevertheless that postponement may be a fortunate thing. There has never been a time when national publicity would have been more effective than now.

Oil is a popular topic. Politicians have made it so. Legislatures will be over in June and it will be the oil men's turn to stand before the microphone and say a few well chosen words.

The first magazine contract starting late in June, is in the Saturday Evening Post. The exact date is not known but it will be the issue of June 13, or June 20 at the latest. Everybody in the United States does not read the Saturday Evening Post from cover to cover every time it comes off the press. But it is one outstanding medium of general circulation in the United States and a great many people do see inside of it. This first campaign is going to cost $110 000 which is a tidy sum of money. There are big oil companies in America that did not earn that much money last year.

Somebody Will Think

Let a few oil companies spend $110,000 to say to the public that they are Independent, and the public is likely to think there is something to it. The "Post" campaign on a subject of this sort is likely to precipitate a great deal of conversation which is the best advertising in the world. The conversation may lead people to inquire of the oil men to learn what all the noise is about, and from the oil men they will get the truth.

The emblem of Independence, the N. P. M. A. official insignia, the black triangle and the conventionalized spread-eagle is not appearing for the first time in The Saturday Evening Post. It has been used by the I. O. M. A. for two years already. Nearly everybody in the United States who drives an automobile will recognize it when he sees it. Its use has not been in popular magazines of national circulation, but its distribution has been wider than even the members themselves realize.

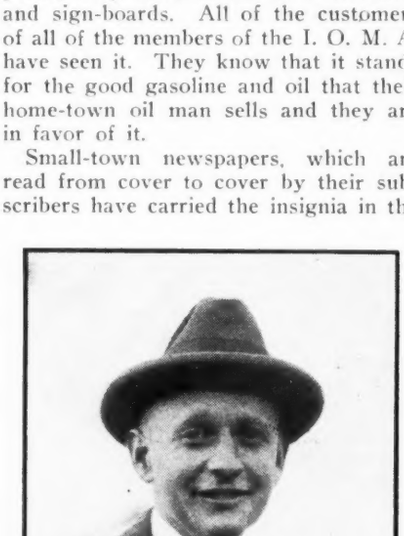
Left to right—"The Senator from Arkansas" well known to the refining and natural gasoline industry, D. B. Dow of the Bureau of Mines, Neil M. Muir and G. M. Davidson, Empire Gasoline Co., taken at the convention of the Association of Natural Gasoline Manufacturers at Tulsa

All the I. O. M. A. members have it on their envelopes, letterheads and bills; they have it on their pumps and light posts; they have it on their windows and sign-boards. All of the customers of all of the members of the I. O. M. A. have seen it. They know that it stands for the good gasoline and oil that their home-town oil man sells and they are in favor of it.

Small-town newspapers, which are read from cover to cover by their subscribers have carried the insignia in the advertising of the local oil man. Publicity has been distributed through the mail and handed out by pump-boys to customers, telling briefly the story of the emblem. In eight or 10 states that sign has been shown rather extensively on out-door poster panels. Of course this does not represent an extensive campaign but it has made its impression and the impression so far has been good.

This accounts for the introduction of the spread-eagle alone in The Saturday Evening Post advertising before the Red Hat is allowed to appear. The bizarre attractiveness of the Red Hat is likely to overshadow the more dignified insignia unless it is subdued at first and introduced "under the wing" of the eagle, so to speak. The insignia of Independence stands for the principle, while the red hat represents a product of merchandise. The association's plan is first to set forth the principle and then introduce the product.

It is understood now that "Red Hat" gasoline will be on the market at stations of I. O. M. A. members in time to catch the tourist trade this summer.



PRESIDENT O. P. KEENEY of the National Petroleum Association got out into the warm spring sunshine at Cambridge Springs when the association was meeting there and the above was the result

Oil Association to Hold Annual Luncheon

PHILADELPHIA, May 4.—The annual luncheon of the Oil Trade Association of Philadelphia will be held on May 14 at the Old Mohican Club, at Morris, N. J. on the Delaware, according to Joseph M. Patterson president of Joseph M. Patterson & Co., Inc., of this city, chairman of the entertainment committee.

The luncheon will consist of planked Delaware River shad and spring vegetables. A quoit contest, a baseball game and "African Golf" comprise the athletic events.

The New York and Baltimore oil trade associations will be represented, as well as the various oil companies on the eastern seaboard. About 150 people are expected to attend.

Competition Sets Gasoline Price, Says New Jersey Standard

Reprinted from May issue of The Lamp, House Organ of Standard Oil Co. of New Jersey

WHEN a notice goes out to the trade advising of an advance of a cent a gallon in gasoline prices, it is a news story of importance. People call it to one another's attention and discuss it, usually with some degree of warmth. Ten years ago such a change in gasoline was not nearly so interesting, while twenty years back it did not matter enough to get a paragraph outside of the trade journals.

Verily, oil is coming on. It is taking its place with sugar and shoes in the list of the American family's everyday necessities. What it costs is known currently to everyone. A fixed price for the automobile's dinner is almost as much a fetish with the householder as the ten-cent-loaf of bread or the nickel subway fare.

When we go outside the list of things whose production may be controlled through a natural or artificial monopoly the price is fixed by the quantity in relation to the consumption. In that class are petroleum and its products. The price of crude oil and gasoline are fixed by the competitive efforts of the producers. It is beyond control or manipulation. A rising tide of either the raw material or any of the derivatives tends to bring about its own curtailment through its depressing influence on the markets. A shortage operates in the other direction: by advancing prices it stimulates production.

Competition In Force

This is so obvious that it would be taken for granted in any other industry. The public does not accept it because of its recollection of a time when such a large percentage of the oil business was controlled by the Standard Oil Co. as to constitute a monopoly. That situation was effectively terminated fourteen years ago. Since 1911, the forces of competition have had the fullest play. Year by year the number of new companies and investors has grown with great rapidity. Today competition would make short work of any company that tried to dictate and maintain a price out of line with basic conditions.

Oil is the most fluid of all important commodities. Like credits, it abhors a vacuum. It moves east or west, north or south, into domestic or foreign consumption wherever the best market offers. There are no territorial lines restricting its movements. A new producing field of importance at once affects prices at wells hundreds of miles removed. An oversupply or deficiency of any of the products on the Pacific coast has an immediate bearing on prices at the Atlantic seaboard. Transportation drains a surplus from the higher level to the lower and stabilizes supply and demand.

Contrasting Situations

In 1920 California was short, and Mid-Continent gasoline flowed in to supply the deficiency. Three years later the fields in the Los Angeles basin poured out such an excess of crude over local needs as to initiate almost overnight a heavy eastern movement of crude and partly finished gasoline stocks through the Panama canal. Today drafts are being made on behalf of eastern refiners on light crude carried in Mid-Continent storage, while thousands of barrels of heavy crude are going into tankage at Smackover.

It is sometimes difficult even for a producer or refiner to account for a price change affecting his business, for this very reason. He sees conditions in his locality and draws his conclusions on that basis, failing to give proper weight to a surplus or shortage in another part of the country. Prices are made not by but for him.

But for the unexpected increase which has been obtained in recent weeks from a deeper sand at Smackover, the crude oil production figures would have shown a decrease. The fact that the Smackover crude is very poor in natural gasoline content does not lessen the psychological effect of an increase in the crude oil production figures.

1924 and 1925 Comparisons

The domestic consumption of gasoline for the first two months of this year and the corresponding months of 1924, in gallons was:

	January	February
1924	500,420,551	402,283,876
1925	596,405,509	542,426,977
Inc.	95,984,948	140,143,101

Domestic production in the same months makes the following comparison:

	January	February
1924	695,322,500	683,736,103
1925	831,652,370	790,441,679
Inc.	136,329,870	106,705,576

This shows that the production of gasoline has been running ahead of the country's needs, although it is always necessary to put into storage considerable quantities of gasoline at this time of year to meet the peak demand in the summer months to come. Certain of the refiners, because of lack of storage or for reasons of finance found it impossible to follow the general policy accumulating stocks during the winter months, and their surplus output, pressing for market, resulted in establishing a lower price in the primary marketing centers in Oklahoma and north Texas. The consequence of this was a drop in tank-wagon prices on the Atlantic seaboard, as the surplus pressing for markets at any point, makes the price until the excess is absorbed.

Recent Price Movements

The latest reduction in tank-wagon prices initiated by the Standard Oil Co. (N. J.) clearly illustrates the machinery of price making. The then prevailing tank-wagon price, based on the cost of crude oil and manufacture, was low, but the offer of carload lots of gasoline at the primary market at a lower level of price enabled buyers to ship it into

Ohio Tax Suit Tangles Tank Wagon Situation

CLEVELAND, May 5.—The fight being waged to nullify the 2-cent gasoline tax in Ohio has left the tank wagon situation in a muddle so far as it concerns jobbers buying gasoline under marginal contract and refiners from outside the state that sell to these jobbers under marginal contracts.

In several cases to which the attention of National Petroleum News has been called the actual tank wagon price has been questioned. The posted price of the Standard Oil Co. of Ohio is 20½ cents but in quoting it adds, "With the tax paid." This publication in its tank wagon market table is carrying the price as 18½ cents.

It seems only fair that where the actual tank wagon price is in doubt until the suit against the tax act is decided that sellers and buyers of gasoline should agree between themselves to protect their respective interests. If the act should be invalidated then the tank wagon price on and from April 19 apparently has been 20½ cents. If the act is upheld by the courts the price, it would seem, has actually been 18½ cents because the importer has had to pay the tax and would not get a refund from the state.

eastern markets and sell under the current tank-wagon price, making it necessary to meet competition or lose sales, and the reduction naturally resulted.

A statistician surveying the figures of production, storage and consumption might read the conclusion that gasoline was selling at too low a price, but if considerable quantities were being offered at any point in the country at a price plus transportation under that prevailing in distant markets, those markets would have to come down.

It is not a matter of what the suppliers think gasoline is worth, but what competition offers it for that determines the tank wagon price.

Gasoline Consumption by States for Two Months of 1925 and Rate of Change Over Last Year

TULSA, April 30.—An increase of 28.4 per cent in gasoline consumption in 29 states which have gasoline tax or inspection laws and for which comparable data covering the first two months of the current and preceding years are available, is shown in the figures compiled by the Western Petroleum Refiners Association in its weekly bulletin.

Domestic demand in the entire country, as reported by the U. S. Bureau of Mines for January and February of this year, was 1,138,832,486 gallons, or an increase of 26.1 per cent over January and February of last year. Basing its figures on the combined experience of several recent years the refiners' association states that normal shipments during these two months constitute 11.2 per cent of total shipments during the year, but that this percentage should not be given too great consideration as indicative for the year, due to the fact that every refiner can mention a number of reasons why his particular plant has its own peculiar problems and cannot be considered as typical of refiners within a certain territory, and likewise, each month and each year will be found to have some abnormal features.

If January and February gasoline demand should prove to be equal to the normal percentage of the year's total, the increase for 1925 would be nearly 31 per cent over 1924. Should shipments for the two months prove to be the percentage of the year's total of 11.61 per cent that prevailed last year, there would be an increase of about 26 per cent for the current year. Any student of these figures should bear in mind that weather conditions so far this year have been much more favorable than a year ago, however.

A comparative table of the number of gallons inspected in the 29 states which have inspection laws, during the first two months of the current year and the past year, together with the percentage of increase over last year, and general business conditions on Feb. 1 of this year in comparison with conditions on the same day of last year, as published in the weekly bulletin of the refiners' association, is given in table below:

	Number Gallons Inspected During First two months of 1924	1925	Percentage Increase Current over Preceding Year	General Business Conditions Feb. 1st in comparison with same day last year
Southeastern States:				
Alabama	10,315,377	14,043,433	36.14%	Improved.
Florida	20,719,377	29,129,257	40.59	Improved.
Georgia	17,974,641	20,386,692	13.42	Less favorable.
Kentucky	11,650,660	12,586,808	8.04	About the same.
Mississippi	8,212,707	10,102,412	23.01	Improved.
North Carolina	19,784,375	20,074,179	16.63	Less favorable.
South Carolina	9,479,928	12,770,349	34.71	Less favorable.
Virginia	13,020,939	14,165,571	8.79	Less favorable.
Total	111,158,004	136,258,701	22.58%	
Northeastern States:				
Connecticut	11,152,247	12,242,992	9.78%	Improved.
Delaware	2,106,855	2,046,792	*2.85	About the same.
Maine	2,041,495	2,343,284	14.78	Less favorable.
New Hampshire	1,144,203	1,914,030	67.28	About the same.
Total	16,444,800	18,547,098	12.78%	
Western States:				
Arizona	3,493,959	3,989,655	14.19%	Improved.
Colorado	13,983,889	13,172,629	*5.80	About the same.
Idaho	2,168,800	2,436,463	12.34	About the same.
Nevada	844,360	989,569	17.20	About the same.
New Mexico	2,211,955	2,841,407	28.46	About the same.
Oregon	9,071,974	10,787,805	18.91	Less favorable.
Washington	15,917,429	18,347,144	15.26	Less favorable.
Total	47,692,366	52,564,672	10.22%	
Indiana Territory States:				
Indiana	25,084,231	36,619,961	45.99%	Less favorable.
Minnesota	18,787,450	23,197,200	23.47	Improved.
Missouri	25,375,100	33,395,900	31.61	Improved.
North Dakota	3,408,372	6,296,162	84.73	Improved.
South Dakota	7,572,348	6,385,107	*15.68	Improved.
Total	80,227,501	105,894,330	31.99%	
Mid-Continent States:				
Arkansas	6,522,939	11,611,911	78.02%	Improved.
Kansas	21,609,450	29,024,700	34.31	Improved.
Louisiana	13,045,962	17,198,710	31.83	Less favorable.
Oklahoma	18,132,088	25,164,659	38.79	Improved.
Texas	45,292,145	66,136,932	46.02	Less favorable.
Total	104,602,584	149,136,912	42.57%	
All above States	360,125,255	462,401,713	28.40%	

*Percentage decrease.

Pennzoil Buffalo Offices to Move Into New Plant

BUFFALO, N. Y., May 4.—The New York state division of the Pennzoil Co., with New York headquarters at Buffalo, will move the middle of the month to its new offices, compounding plant and storage plant, which is being rapidly completed, at Military rd. and Skillen st., this city.

The new plant, which has been made necessary by increasing business, is of modern fire-proof construction and embodies many up-to-date ideas in efficiency of operation, according to A. S. Matthews, vice president and general manager. The company will also operate a service station at this point.

Mr. Matthews as well as the rest of the organization, will be glad to welcome their friends at the new location after May 18.

Turners Buy Diamond Oil Co.

MEMPHIS, TENN., April 24.—Turner & Turner, for four years Independent jobbers in this city, recently purchased the Memphis plant and properties of the Diamond Oil Co. The equipment of the Turner plant has been moved to the Diamond plant at South Cooper St. and Union Railway, where the business will be carried on with increased storage and delivery facilities, according to R. E. McKellar of the Turner company.

The business will be operated under the name of Turner & Turner, and practically the entire personnel of both companies have been retained.

A. T. Locke Moves

CHICAGO, May 3.—A. T. Locke, an oil jobber with offices in Chicago and distributing stations in smaller towns of Illinois, has occupied offices at 1730 Tribune Tower, being one of the first persons to move into that imposing structure. The move was made May 1. He was in the Railway Exchange building previously.

CHICAGO, May 1.—Effective May 1, the Jenkins Petroleum Process Co., headed by Shelby Black will move its headquarters from 208 South La Salle St., to 844 Rush street. The new quarters are in the American Fore building, one of the new office buildings on the near north side of Chicago's business district.

CLEVELAND, OKLA.—Holroyd Motor Co., oil jobber and Ford dealer of this city, recently took over the distribution of Waverly products in this section.

Railroads' Demand For Greater Return May Keep Oil Freight Rates Up

By Special Correspondent

WASHINGTON, May 4.—Grief, fully dressed and ready to walk, is waiting around the corner for refineries and marketers of petroleum in the territory west of the Mississippi river. The railroads in the western district have asked the Interstate Commerce Commission to issue such orders as may be necessary to give them an increase in their net income of $183,871,000, over that of 1924.

The rate body received that request April 29 from a committee of five railroad traffic vice presidents. They asked the rate body to issue the necessary orders after the necessary investigation.

At the time this was written no answer had been given to the request, which might be called a demand. The petition was not the usual request for an increase in rates. It was a request for such orders as might be necessary to give the petitioners the additional sum mentioned. It might be called a demand because the petitioners said that the present rates were confiscatory, basing that declaration on the fact that the courts, in recent years have tended to say that 6 per cent was the least that could be called a reasonable return and because they asserted that money could not be borrowed for less than 6 per cent.

The request may be called a demand because, in 1920 congress enacted a statute directing the commission to make rates so as to give the carriers a fair return on the value of the property devoted to the public service, not less than 6 per cent in that year and at whatever other figure the commission might fix in succeeding years. Five and three quarters per cent is the fair return established by the commission in 1922.

At no time since 1920, the western railroads said, had they made as much as 5¾ per cent. In 1924, they pointed out, they made only 3.87 per cent. They count their investment at $9,780,379,000 so that, in effect they ask for 1.88 per cent on that sum, so as to bring their net up to the 5.75 per cent the commission held, in 1922, would be a fair return for them.

Inasmuch as the statute requires the commission to make rates to give a fair return and the courts have said that six per cent or more is a fair return on public utilities, the railroads, technically are in a position to assert that if the commission allows them to increase in rates, or does not take any money away from the more prosperous eastern and southern roads, (although the latter have not made as much as 5.75 per cent) it is confiscating their property, although it may be questioned whether higher rates will not reduce their net income, rather than increase it. High rates have made it impossible for western farmers to get to the eastern markets in competition with eastern farmers, hence the yelling of the western farmers.

One view of the demand of the western roads is that it is intended as a buffer to prevent the commission ordering any reduction in the rates on petroleum and its products as demanded by the Sinclair, Miller and other complaints, which have been under consideration for a year. It is also deemed a buffer against the demands of livestock interests for a reduction and a shield against the Hoch-Smith joint resolution, adopted at the last session of congress, telling the commission to make rates so that commodities will freely move and the country be developed "as a whole."

In volume, petrolem and its products constitute 1.7 per cent of the tonnage of the western carriers as a unit. It furnishes about five per cent of their revenue. Petroleum constitutes 5.8 per cent of the products of mines, the volume of mineral products constituting 29.2 per cent of the whole volume of their traffic.

In revenue, petroleum and its products pays the western railroads more than grain and grain products, although that seems a violent statement to make concerning one of the principal productions of the western district.

Internal Revenue Bureau Rules on Gas Tax

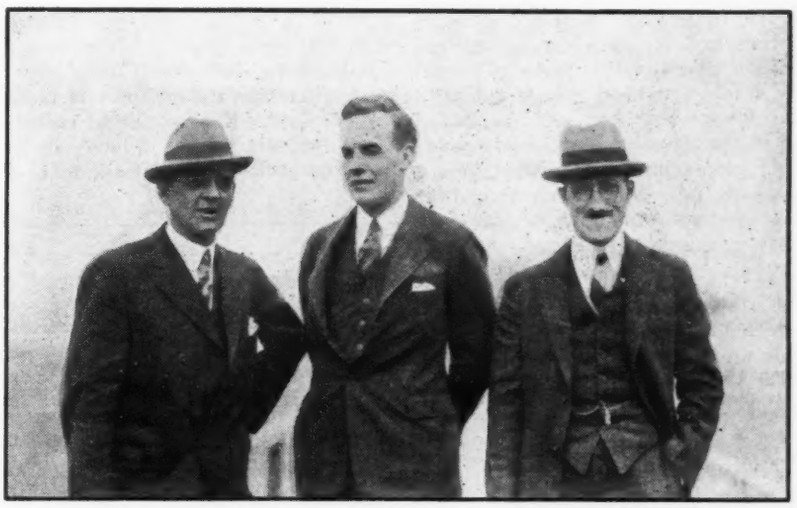
By Special Correspondent

WASHINGTON, May 4.—Advice by the Internal Revenue Bureau, given upon request to persons interested, is that state taxes upon motor fuels, may be deducted from income tax returns by dealers in Maryland, Virginia and the District of Columbia. A further advice is that purchasers of fuels for use for business purposes may deduct from their returns any addition made to the price of the fuel by the dealer or distributor to cover the tax levied upon him.

This advice does not cover the question of deduction of state taxes collected by the dealer, as the agent of the government. Under precedents set in the cases of excise and luxury taxes assessed by the national government, but collected by dealers, it may be inferred that in states where the dealers or distributors are merely designated as tax collection agents, deduction might be made.

However, it is dangerous to infer that the Internal Revenue Bureau is guided by either law or logic. Its primary function is to get money and give it up only after tedious and expensive litigation. That policy is partly the result of the fact that the government is usually in need of all the money it can get and partly from such attacks as Senator Couzens is making on Secretary Mellon, in which the public is invited to believe the treasury is crooked because, in cases of assessments of income tax made to break down the statute of limitations on the examination of income tax returns, the treasury solemnly in need of all the money it can get it put upon a tax-payer is not accurate and goes through the form of returning money it never had and never was entitled to receive.

As to the two states and the federal district, however, the law is that the dealer may deduct the amount of the tax from his income tax return but the consumer may not deduct such taxes, except in instances where he has paid them as part of the cost of doing business. In no case, however, is the tax to be deducted by the consumer who uses his automobile as a substitute for a street car or a taxicab, any more than he is permitted to deduct the amount of taxes paid by the person who furnishes



Three New Yorkers at Cambridge Springs, taking in the eastern refiners sessions. R. A. Wotowich, Empire Refineries, Inc.; L. C. Quackenbush, Tide Water Oil Co., New York; and Dr. H. J. Masson, New York University, N. Y.

him coal or any other commodity. The controlling fact in regard to the statutes of the three political subdivisions of the country mentioned, is that they put the tax, in terms, upon the dealers or distributors, and not upon the buyer of the motor fuel. In that respect they differ from the statutes imposing excise and luxury taxes collected by the federal government.

The advice to the inquiring tax-payers, summarized by the Internal Revenue Bureau, in Internal Revenue Bulletin No. 16, volume IV, article 131, is as follows:

"Inasmuch as the tax on motor vehicle fuel imposed by the states of Maryland and Virginia, and by the District of Columbia, under the statutes above-mentioned, is levied against and is paid by the dealer or distributor, it is held that such tax is deductible only by the dealer or distributor against whom it is levied and by whom it is paid. If the tax is made a part of the expenses of the business of the distributor or dealer or a part of the cost of the fuel sold, it can not be deducted separately as a tax item, but may be deducted as a part of the business expenses, or treated as a part of the cost of the fuel sold. Purchasers of the fuel for business purposes may include as a part of the cost of the fuel any addition to the price made by the dealer or distributor to cover the tax levied upon him."

Second Serpentine Pay Below Chalk at Lytton Springs

By Paul Wagner

N. P. N. STAFF WRITER

HOUSTON, May 2 UNITED North & South Oil Co.'s No. 1 Gomillion well, in the Lytton Springs field, along the Caldwell-Bastrop county boundary, has opened a second pay horizon in the new pool northeast of Luling. The well is flowing from total depth of 1730 feet and is variously estimated at 1500 to 2000 barrels, initial production.

Earlier wells in the Lytton Springs field have produced from the 1200 to 1400-foot levels, depending upon elevation and the depth penetrated into the serpentine deposits where the oil is found. The Gomillion well was dry in the upper serpentine, but is reported to have picked up another deposit of this formation after passing through the Austin chalk topped at 1586 feet.

Serpentine is the name applied to decomposed volcanic ash, which in the Lytton Springs field serves as a reservoir for migratory oil similarly as sands form pockets for petroleum under other structural conditions. It is not a source formation and is, therefore, dependent for oil on deposits that have migrated to the levels at which it is found.

The lowermost bed of serpentine found in the Gomillion well was topped at 1645 feet and it was drilled into a total of 85 feet. The upper serpentine bed was logged from 1486 to 1521 feet.

Eleventh Producing Well

When the Gomillion well was completed it became the eleventh successful test drilled in the field. It brought production up from a daily average of nearly 4000 barrels, divided as follows:

Company—Farm	Wells	Bbls.
Marland & Cranfill, Gomillion	1	730
Gulf Production Co., Beaty..	1–2–3	656
Mid-Kan. O. & G. Co., Brewer	1–2	1070
Sun Oil Co., Gomillion	1–2	1350
Witherspoon Oil Co., Brewer	1–2	117

Gulf Production Co.'s No. 1 Brewer, on a 155 acre lease offsetting the Mid-Kansas No. 1 Brewer, had serpentine at 1125-1438 feet and was showing only for a small pumper. The Marland-Lucey partnership test on the H. E. Palmer 28-acre lease, operated by Capt. J. F. Lucey, had serpentine at 1313-1461 feet and was bailing at the time this was written. It was considered certain to make a well. The No. 3 Brewer of the Mid-Kansas had been shot three times after getting the bottom of the serpentine at 1205 feet, but had shown no productive results.

Well Cheaply Drilled

About 65 tests in the Lytton Springs field range from the location stage to the point of drilling-in for completion. Wells can be drilled in the field, down to casing point, in a few days to a week, at costs not exceeding $4,000 to complete and equip.

Magnolia Petroleum Co., which has a 6-inch gathering line in the field and is building a 5-inch outlet from Lytton Springs development to its Luling pipeline, is paying $2 a barrel for the oil at the well.

Grayburg Refining Co. of San Antonio is laying a 4-inch line from Luling to the field. Kampman & Eggleston of San Antonio have a 3-inch pipeline to loading racks at Dale, three miles away, and the Sun Oil Co. is laying a 4-inch line from the field to its loading rack at Dale. The Sun also is erecting one steel storage tank of 55,000 barrels capacity on the Gomillion lease.

Flannigan Drilling Co. is completing a 4-inch water line from Lockhart to the field, pumping seven miles with a 25 horse power engine. The Humble & Marland companies have completed a water line equipped with a 100 horsepower Waukesha 4-cylinder motor and 14 x 6¾ pump; and will have another 60 horsepower available for booster station if needed.

Big Lake Field

The Texon-Group 1 No. 7 test in the Big Lake field of Reagan county is a new completion in pay at 2918-2960 feet, flowing between 175 and 200 barrels an hour when it came in. It is generally rated a 4000 barrel well.

The Big Lake field was already producing upwards of 20,000 barrels daily when the No. 7 well came in. The Big Lake Oil Co. had roundly 14,550 barrels daily production and the Texon-Group 1 interests about 7250 barrels daily.

Reagan County Crude Purchasing Co. (Marland interests), who contracted to take 10,000 barrels daily from the aforementioned two companies until December 1, 1925, now has more than 1 million barrels of this crude in storage. After December 1, its contract calls for 20,000 barrels daily. Under its resale contract with the Humble Oil & Refining Co. it will move out about 10,000 barrels daily through the newly completed Humble pipeline from Big Lake to Comyn.

As announced in the April 29 issue, Humble will take about 7500 barrels daily each from the Big Lake and Texon companies against a newly made contract totalling nearly five and a half million barrels. Separate contracts were made with the Big Lake and Texon interests for this total. Excess quantities of crude over and above the capacity of the 8-inch pipeline will be handled to Texas City in tank car shipments on a 14 cents per hundred freight rate.

Laredo District Discovery

Henne, Winch and Fariss have extended production about one mile south of earlier development in Jim Hogg county, their No. 1 Martinez test, in block 13, sec. 256, flowing 1500 barrels, initial by heads, at 2048 feet.

The cluster of small pools in the Laredo district which extends southward from Mirando City, along the foot of a westward facing escarpment, again total about 12,000 barrels combined production daily.

Bulletin

HOUSTON, May 3.—Texon-Group 2 Oil Corp's. No. 2 University Lands and its No. 3 University Lands tests both in sec. 26, east of the developed part of the Big Lake field, Reagan county, are dry holes. No. 2 tested dry at 3072 feet and No. 3 at 3104 feet. They are about one mile east of production of the Big Lake Oil Co., and a similar distance southwest of the Texon-Group No. 1, in sec. 22, which was drilled to total depth of 6009 feet before abandoning.

DAVENPORT, IA.—Arrow Petroleum Co., distributor of Waverly products in this district, has just opened its new service station here, according to E. R. L. Boyd, district manager at Wichita, Kan. for the Waverly Oil Works Co.

Rainbow Bend Field of Kansas Holds Promise of High Acre Recovery

By D. R. Snow and D. P. Dean

Presented at Meeting of American Petroleum Geologists at Wichita

THE Rainbow Bend field of Cowley county, Kansas, is the first field of commercial importance to be opened between the old Augusta and Blackwell oil fields. Since its discovery in December, 1923 the field has produced over 2,000,000 barrels of oil of approximately 41 degree gravity. Thirty-one wells have been completed with an average daily initial production of over 1000 barrels per well without shooting. The field is now making around 12,500 barrels daily. There are twenty-eight drilling wells, most of which are inside proven locations, and from present indications the field gives promise of developing into one of considerable importance. (These figures as of March 26.)

A much higher daily output would undoubtedly have been reached but for the fact that the entire block is owned and controlled as a unit by three companies. Waite Phillips Oil & Gas Co. which owns a half interest operates the property. The Marland Oil Co., and the Independent Oil & Gas Co., each own a one-quarter interest.

The writers have watched the development of the field in the interest of Waite Phillips company, and are indebted to them for the privilege of presenting this paper.

The Rainbow Bend field is located in T. 33 S., R. 3 E., Cowley county, Kansas, in the center of a 3500-acre block which occupies a large bend in the Arkansas River, locally known as Rainbow Bend, hence the name of the field.

History

Martin W. Baden, of Winfield, originally assembled this block and made a favorable geological report to Johnson D. Hill of Okmulgee, who jointly with the Independent Oil & Gas Co. contracted to drill a 3000-foot test. Mr. Hill became affiliated with the Waite Phillips company in 1923, in this project.

Nothing was found at 3000 feet and this company acquired his half interest the well was drilled deeper, topping the pay at 3198 feet, and the discovery well was completed in December, 1923, as a 350-barrel flowing well.

Several months later the Marland Oil Co. purchased one-half of the Independents half interest, and laid a pipe line to the field from their Ponca City refinery. This line has taken all of the oil from the Rainbow Bend field until recently when Waite Phillips company started running part of their production to their own refinery at Wichita.

Several of the larger companies recognizing the importance of the discovery moved core drills into the area, and as a result the Marland Oil company located and drilled their Graham No. 1, in the northeast corner of Sec. 9, T. 33 S., R. 3 E., three miles northeast of the Rainbow Bend field. This well found only a sandy shale in the Rainbow Bend producing horizon, but it was completed in July, 1924, as a 900-barrel well in the top of the Ordovician siliceous limestone. This was the first commercial producer found in this horizon in Cowley county. Eight wells have since been completed in this field, which is known as the Graham field, and there are at present 15 drilling wells in this vicinity. Several wells have also been completed in this area in the 2550 foot sand.

Geology
Surface Indications of Structure

Surface rocks in the Rainbow Bend area are chiefly alluvium, shale, and red rock. Evidence of surface structure is confined principally to a rotten brecciated limestone which weathers into a characteristic porous outcrop. This bed lies in the upper part of the Pearl shales about 70 feet above the Herington limestone. This is near the contract of the Marion and Wellington formations, which are of Permian age. This limestone, probably occupying the stratigraphical position of the Abilene conglomerate, can be followed from the north line of Sec. 7, T. 33 S., R. 3 E., southeast for about three miles along the west side of the river into the center of the southwest of Sec. 20, of the same township.

No appreciable structure is evident on this ledge, the dips being irregular and the greatest difference of elevation being fifteen feet. However, a mile and a half southeast under the river bridge in section 21, there occurs a limestone bed of practically the same physical characteristics which is 20 feet lower in elevation than the bed in the Rainbow Bend. No fossils have been found in either of these limestone out crops and a definite correlation has not been made, but it is the writer's opinion that they are the same. As far as we know this is the only surface evidence of a structure in Rainbow Bend.

Core-Drill Structure

Waite Phillips company has done no core drilling in this area, but from authoritative sources, it is understood that the Herington limestone shows a long southwest plunging nose whose axis conforms generally with the Mississippi lime axis through the Graham and Rainbow Bend fields, but whose dips are much

Wildcatting Expected

Important developments are expected in Cowley and Summer counties, Kansas, and there promises to be considerable wildcatting during this year, both on favorable evidence indicated by core drilling and by "long shots" based merely upon general geology and "trends" of production.

Of outstanding interest in this area now is the Rainbow Bend pool, described in the accompanying paper, which was presented at the March meeting of the American Association of Petroleum Geologists, held in Wichita. It is published here by permission of the authors and of the Association.

Rainbow Bend obtains its important production from a sand which is believed to be the equivalent of the Burbank sand. The paper by Messrs. Snow and Dean, who have been in close touch with the field for the Waite Phillips Oil & Gas Co., is a valuable contribution to the data on this region.—Editor

Rainbow Bend Pool Output Climbing

TULSA, May 2.—Recent developments in the Rainbow Bend field of Cowley county, Kans., have pushed its production up to around 16,500 barrels daily as compared with an average of 11,200 last week and it is estimated that during the next week or 10 days the field will reach a mark of 25,000 barrels a day.

There are now 37 producing wells with 23 drilling. Of the latter, seven or eight are expected to be drilled in during the coming week. Among the recent completions are the Ellen Nelson No. 3 in the northwest corner of the southwest of the northeast of 20-33-3E which came in making 90 barrels an hour in sand from 3196 to 3227 feet; Thomas Snyder No. 2, northeast corner of the southwest of the southwest of Sec. 21, flowing 150 barrels an hour in sand topped at 3116 feet and Dora Johnson No. 3 in the southeast corner of Sec. 20 which made 3310 barrels the first 24 hours in sand from 3221 to 3266 feet.

less pronounced than those on the deeper formations.

The subsurface structure of this district as shown on the general map in 50-foot contours on the top of the Mississippi lime, indicates an axis of folding from the Clarke field in Sec. 6, T. 31 S., R. 4 E., extending south through the Rainbow Bend field to Blackwell. This same trend probably extends south through the Hubbard, Bezdor and Barnes fields to Garber. It is approximately parellel to a line drawn along the axis of the Granite Ridge, and probably closely associated with it in origin, although no granite has been found south of Oxford on this trend.

Along this general axis of folding isolated structures of various types occur, of which the Graham and Rainbow structures are fair types. On the accompanying large scale map, 10 foot contours have been drawn on top of the Mississippi limestone, defining these structures as far as is known by present drilling. There is considerable question concerning the contouring of Sections 7 and 8, and it is impossible to determine from present available data, whether this area is synclinal or anticlinal, but we are influenced by the Slick and Marland's Heskett well in Section 19, which is running high, in drawing in a structure south of the Patterson dry hole in Section 18.

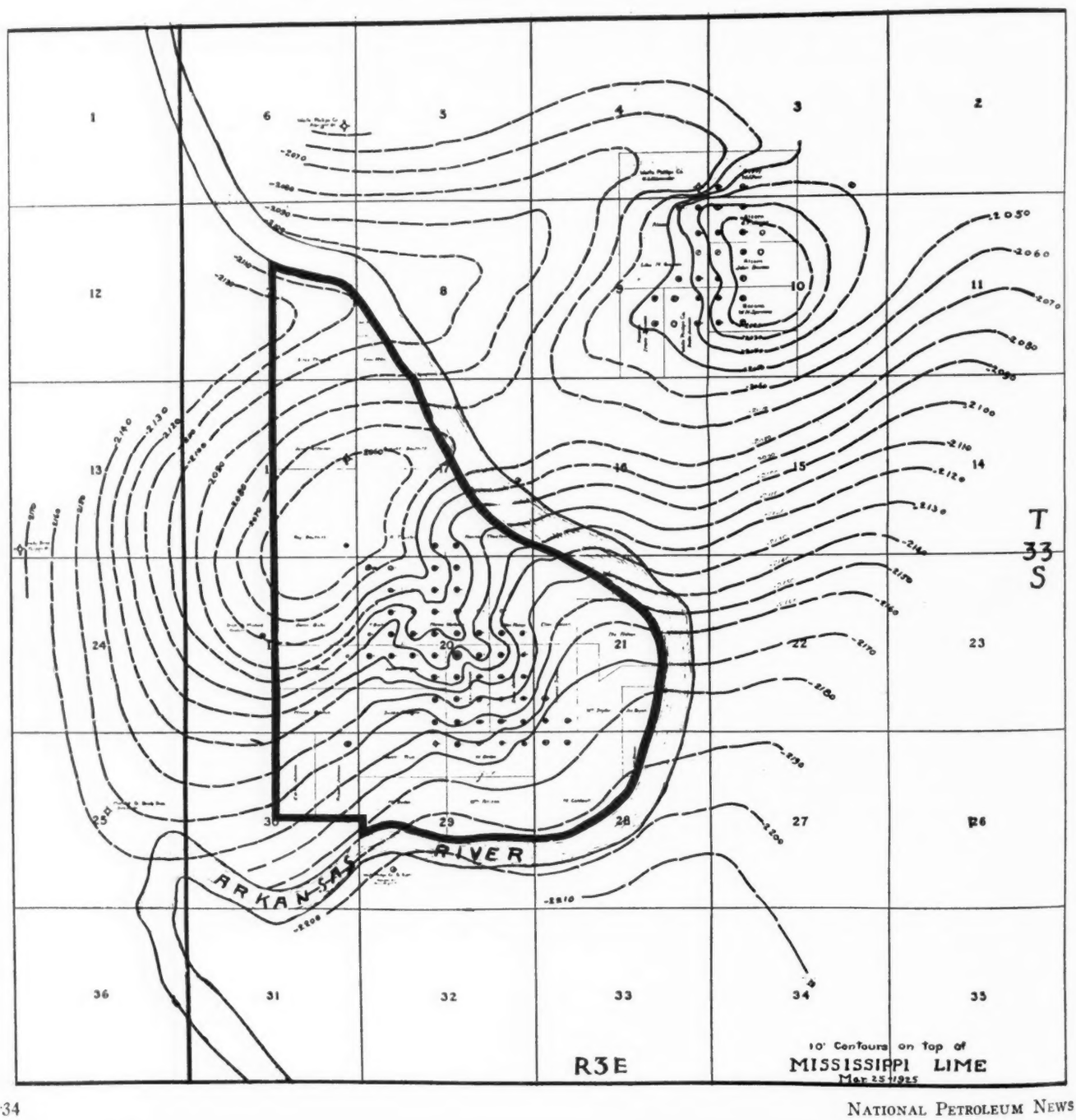
Another interesting fact in connection with the subsurface of this area is the variation in thickness of the Mississippi limestone with relation to structure. On the south and east sides of the field the lime is 100 feet thicker than on the crests of the structures. This causes a much steeper structure on the Ordovician limestone than is shown on top of the Mississippian. A similar but not so pronounced variation, is found in the Cherokee shale.

Producing Horizons

There are three producing sands in T. 33 S., R. 3 E., at present. The shallowest, found at 2550 feet in the Graham field appears to be a spotted producer. Good showings have been found at this horizon in the Rainbow Bend field, but no producers have been completed. This sand is producing in the Slick pool six miles north. It lies in the upper sandy member of the Kansas City formation, and correlates with the Layton sand of Oklahoma, and the Stokes sand at El Dorado.

The second sand, and the most important, is found on top of the Missis-

The Rainbow Bend Field, Cowley County, Texas



sippi lime, and has been termed the Rainbow Bend sand. It has been thought better to name the producing horizon from the name of the field as at Burbank rather than from the farm on which the discovery was made. The writers believe that this sand can be consistently referred to the Burbank Sand horizon of Oklahoma which has previously been correlated with the Bartlesville. These three sands apparently occupy the same horizon although they cannot be shown to be continuous, and are therefore given separate names.

A cross section from Burbank to Rainbow Bend shows this sand to be closely associated with a red rock horizon, and that the thinning of the shale below the sand to the northwest has brought the sand in contact with the Mississippi limestone in the Rainbow Bend field.

The Rainbow Bend sand is a true quartzitic sand of varying hardness, depending largely on the amount of calcareous cementation. One specimen of this sand was obtained from the Glasgow No. 5 well on the west side of the field, and showed a porosity of 29 per cent, which is unusually high. This porosity is probably not representative of the field, as the sample was obtained when a gas pocket blew the sample of sand out of the hole.

The thickness of the Rainbow Bend sand varies from 5 to 50 feet, thinning towards the crest of the Mississippi lime ridge, and thickening towards the southeast. No water has yet been found in its base. Some water has shown in those wells which have been drilled several feet in the Mississippi limestone.

The next important sand occurs at 3500 feet in the top of the Ordovician siliceous limestone. In many wells which have tested this horizon in thin film of Wilcox sand and green shales have been found between the Ordovician limestone and the Chattanooga shale. This productive siliceous limestone bears the same characteristics as at El Dorado and Augusta, and presents a similar problem of closely associated sulphur water. At present, this horizon is only producing in the Graham pool.

Relation of Production to Structure

Production in the Rainbow Bend field is very similar to that in the Burbank field in that it is controlled almost entirely by the character and extent of the sand body. The largest wells occur on that part of the structure where the sand is thicker and more porous, which occurs from 30 to 50 feet below the highest parts of the sand body.

The sand in the Rainbow Bend field lies on the southeast slope of a prominent Mississippi lime ridge, and as far as we know this is the only occurrence of a productive sand body lying to the east of a lime high in this general area.

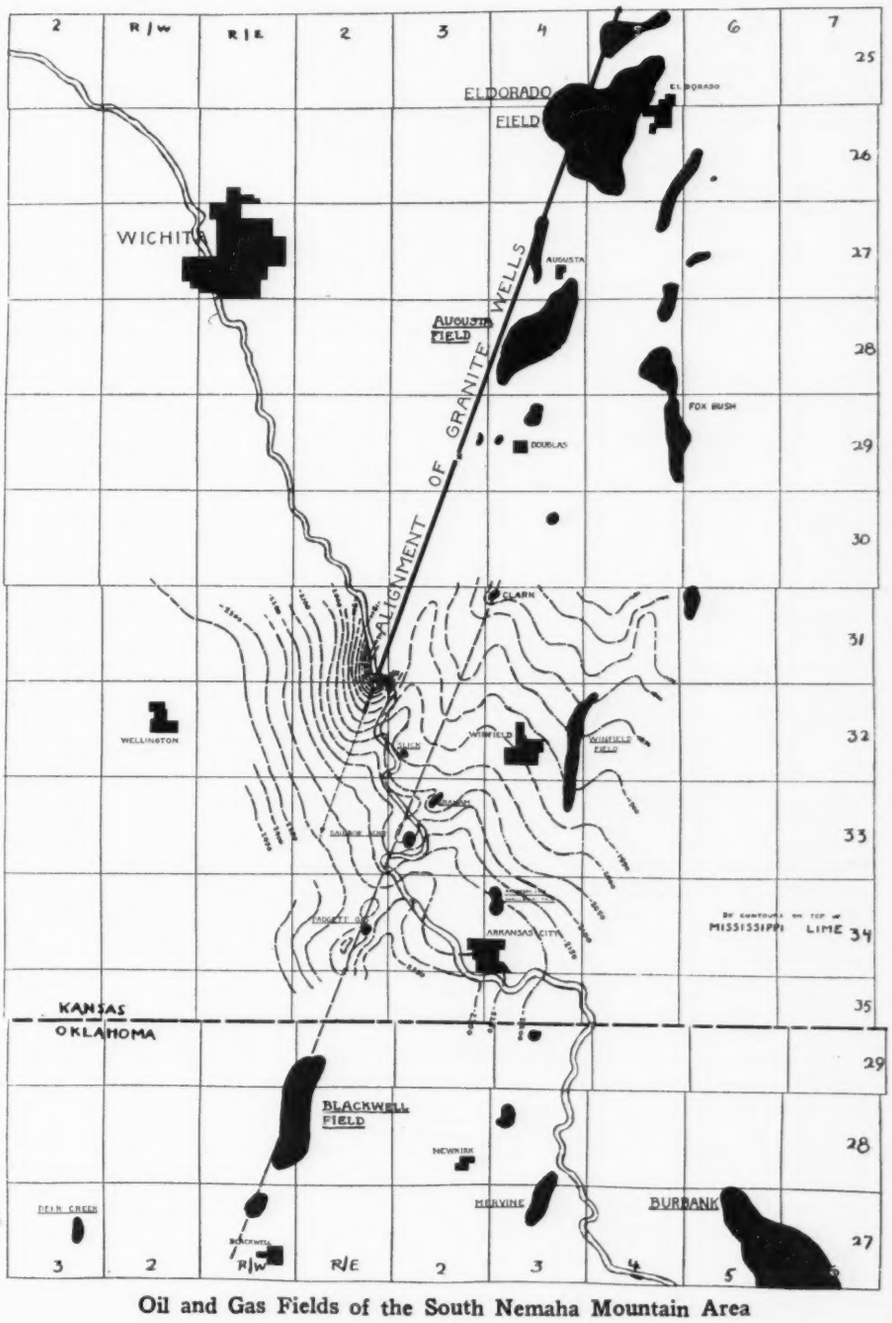
The extent of this sand body will probably define the limits of the field.

Ordovician siliceous lime production will probably bear the same relation to structure here as at El Dorado and Augusta. So far, this production has not given promise of any real class, but the Marland Sheehan well in Section 34, which ran 297 feet lower than the Graham discovery well, and showed for a 40-barrel pumper, suggests that this sand has possibilities of producing over a much larger area than the present Graham field would indicate. One well in the Rainbow Bend field, the Patterson No. 1, has recently been drilled to this horizon without finding production.

Production Yield Per Acre

For the area already proven (approximately 640 acres) the probable yield per acre will be approximately 12,000 barrels. This is considerably greater than the average yield per acre at Burbank, but the natural initial production per well in the Rainbow Bend field is also much larger than the average for the whole field at Burbank. As the proven area increases, this estimate per acre will probably be reduced because of poorer production on the edges of the field, and the relief of gas pressure through present producing wells.

A casinghead gasoline plant has recently been completed, and is producing approximately 15,000 gallons per day. This plant is being enlarged to a capacity of 30,000 gallons per day. There is approximately 25,000,000 cubic feet of casinghead gas available from the Rainbow Bend sand at the present time. The average yield per thousand cubic feet of gas is now about 2.0 gallons of grade A gasoline, and will no doubt greatly increase as the field increases in age. It is estimated that the plant can be operated at a capacity of 30,000 gallons per day for two and one-half years from the gas of the present proven area before production will be decreased from diminished gas. It is also estimated that the value of the casinghead gasoline production is approximately 25 per cent of the value of the oil production.



Oil and Gas Fields of the South Nemaha Mountain Area

Output of Light Oil Declines Survey Figures Show

WASHINGTON, May 2

DURING March daily average production of petroleum in the United States (amounting to 1,939,677 barrels) increased 9,498 barrels as contrasted with that in February. Considerable increased production in Arkansas and Texas was in part offset by decreased output in Oklahoma and California.

Notwithstanding the gains in total production, the output of light oil —lighter than 24° (0.910)—decreased during the month approximately 20,000 barrels daily. Pipe-line and tank-farm stocks, which on March 31 were 348,157,000 barrels, decreased 202,000 barrels, an increase of 953,000 barrels in California being more than counterbalanced by a decrease in stocks east of California. Stocks of crude oil at refineries, according to tentative figures, on March 31 were 43,500,000 barrels—a decrease of 170,000 barrels

For the first quarter of 1925 production of petroleum in the United States (amounting to 173,694,000 barrels) increased more than two million barrels as contrasted with that for the first quarter of 1924. The output of the Mid-Continent field increased twelve million barrels, the chief gains being in Oklahoma, Texas, and Kansas. Decreased output is reported in all the other major fields except the Appalachian, the greatest losses being in California and in the Rocky Mountain field.

Although imports of crude oil for the first quarter of 1925 (amounting to 18,980,000 barrels) were 2,465,000 less than those for the corresponding period of 1924, imports from countries other than Mexico increased 1,205,000 barrels. Shipments from Venezuela are increasing. Consumption of crude petroleum during the first quarter of 1925 was approximately 14,000,000 barrels greater than domestic production.

Production

The figures given below for the states east of California, compiled from reports made to the Geological Survey by companies that operate gathering lines, are preliminary and show the quantity of petroleum transported from producing properties which amounts to approximately 99 per cent of the total production. Petroleum consumed on the leases and produced but not transported from the producing properties is not included in the preliminary figures. These items are given in the final statistics, which show all the oil brought to the surface. Current figures for California are those reported by the Pacific Coast Office of the American Petroleum Institute. Final figures for California are compiled by the California State Mining Bureau.

BY STATES

(Barrels of 42 U. S. Gallons)

State	*Feb. 1925 Daily average	Mar. 1925 Daily average
Arkansas	97,281	118,323
California	602,494	600,839
Colorado	1,893	2,581
Illinois	21,536	23,484
Indiana:		
Southwestern	1,893	1,613
Northeastern	536	613
Total Indiana	2,429	2,226
Kansas	89,893	89,903
Kentucky	19,479	19,142
Louisiana:		
Gulf Coast	6,679	7,000
Rest of State	46,714	46,677
Total Louisiana	53,393	53,677
Montana	8,071	7,516
New Mexico	357	935
New York	4,107	4,194
Ohio:		
Central & Eastern	13,893	14,000
Northwestern	5,357	5,322
Total Ohio	19,250	19,322
Oklahoma:		
Osage county	78,964	80,323
Rest of State	418.257	394,677
Total Oklahoma	497,221	475,000
Pennsylvania	20,893	21,710
Tennessee	21	19
Texas:		
Gulf Coast	59,642	78,323
Rest of State	336,679	323,677
Total Texas	396,321	402,000
West Virginia	15,964	15,774
Wyoming:		
Salt Creek	59,429	62,097
Rest of State	19,607	20,935
Total Wyoming	79,036	83,032
Grand Total	**1,930,179**	**1,939,677**

*Revised.

Stocks

Stocks of crude petroleum for statistical purposes are classified as follows, including crude stocks at refineries, a new feature in the survey's report.

Stocks of Crude Petroleum on Last Day of Month (Thousands of Barrels)

Pipe-line and tank-farm stocks:
Domestic petroleum (reported by fields of origin, not by location of storage):

	Feb. 28 1925*	Mar. 31 1925
East of California:		
Appalachian:		
N.Y., Pa., W.Va., Eastern and Central Ohio: Gross	7,352	7,266
Net	7,111	7,051
Kentucky: Gross	2,449	2,358
Net	2,333	2,243
Lima, Indiana: Gross	1,407	1,364
Net	1,190	1,151
Illinois, S.W. Ind.: Gross	11,341	11,424
Net	10,813	10,936
Mid-Continent:		
Okla., Kan., N., Cent., and W. Texas: Gross	184,772	183,968
Net	173,510	172,404
N. La., and Ark.: Gross	35,230	34,755
Net	33,147	32,699
Gulf Coast: Gross	19,310	19,868
Net	18,949	19,478
Rocky Mountain: Gross	28,961	29,023
Net	28,939	29,000
Total pipe-line and tank-farm stocks east of California: Gross	290,822	290,026
Net	275,992	274,962
California (as stated above)	71,843	72,796
Foreign crude petroleum held in U. S. by importers elsewhere than at refineries:		
At Atlantic coast stations	204	220
At Gulf Coast stations	320	179
	524	399
Total domestic net pipe-line and tank-farm stocks east of Calif.; California stocks; and foreign crude stocks (as stated above)	348,359	348,157
Refinery stocks (Bureau of Mines):		
Domestic crude oil:		
East of California	27,980	†27,370
California	10,724	11,030
Foreign crude oil	4,966	†5,100
Total crude oil at refin'es	43,670	†43,500
Total pipe-line, tank-farm, and refinery st'ks of crude petroleum	392,029	391,657

*Revised.
†Tentative figures of Bureau of Mines.

Indicated Day's Supply of Pipe-line and Tank-farm Stocks of Crude Petroleum

(Based on average daily rate of deliveries to domestic consumers and exports)

February, 1925	165
March, 1925	162
March, 1924	159

Imports and Exports of Crude Petroleum (Barrels)

(From Bureau of Foreign and Domestic Commerce.)

	Feb. 1925 Daily average	March 1925 Daily average
Imports:		
From Mexico	176,821	193,290
From other countries	22,464	12,355
Total	199.285	205,645
Exports:		
Domestic crude oil:		
To Canada	19,500	24,677
To other countries	20,214	8,774
Foreign crude oil	357	645
Total	40,071	34,096

Indicated Deliveries of Crude Petroleum To domestic Consumers (Barrels)

(Production plus imports minus exports plus stocks, exclusive of consumers' stocks, at beginning of month minus stocks at end of month.)

	Feb. 1925* Daily average	March 1925 Daily average
Domestic petroleum, by fields of origin:		
Appalachian	70,357	79,677
Lima-Indiana	5,643	7,194
Ill., and S.W. Ind.	24,571	21,129
Mid-Continent	1,112,393	1,103,709
Gulf Coast	75,393	68,258
Rocky Mountain	83,893	92,097
California	540,607	570,097
Deliveries and exports	1,912,857	1,942,161
Deliveries	1,873,143	1,908,710
Foreign Petroleum	201.393	209,032
Deliveries of domestic and foreign petroleum	2,074,536	2,117,742

*Revised.

Number of Producing Oil Wells Completed

February, 1925	990
March, 1925	1085
March, 1924	1088

Shipments of California Oil Through Panama Canal to Eastern Ports in United States

(From the Panama Canal Record)
(Compiled from declarations by masters of vessels reported in tons of 2240 pounds.)

	Feb. 1925	March 1925
Crude oil, long tons	224,142	211,394
Barrels, (approx.)	1,636,000	1,543,000
Refined products:		
Long tons	86,444	176,931

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*Atlanta	*Chester	*Fresno	*New Bedford	*Pittsburgh	Scranton	*Wheeling
*Atlantic City	*Chicago	Harrisburg	*New Haven	*Providence	Shamokin	Wilkes-Barre
*Baltimore	*Cleveland	*Indianapolis	*New York	Reading	*Springfield	Williamsport
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EITHER OR BOTH - AS YOUR WORK REQUIRES

Steel Mills Expect 1925 Pipe Business To Exceed That of 1924

By Special Correspondent

PITTSBURGH, May 5

ALTHOUGH the tubular goods trade no longer believes that 1925 will be a record-breaking year from the standpoint of exceptional activity in the oil fields, nevertheless the consensus of opinion seems to be that it will prove to be a heavier oil well drilling year than 1924. Because other branches of the pipe business outside of the oil country goods, have not remained active, operations have slumped somewhat in the past four to six weeks, hence at present mills are operating on the basis of 70 to 75 per cent. Oil country jobbers are ordering in harmony with the rate their own stocks are being depleted, although now and then they order a fairly large tonnage shipped direct to some particular operation. Usually the orders for stock involve one to five carloads, with an order for 5 to 10 carloads being placed from time to time.

The Youngstown Sheet & Tube Co., and the National Tube Co., each are fairly well fortified with line pipe business and have larger backlogs than the other makers. Whether or not the Hope Engineering & Supply Co., Blackwell, Okla., has ordered the pipe for the contract it recently secured, is not known here. It will build a gas line 120 miles long, 10, 12 and 14-inch pipe, for the Laruthan Fuel Co., between Wellington, Kan., and the Blackwell fields. The fuel company also plans a natural gasoline plant. D. W. McKay Mayo building, Tulsa, is district superintendent in charge of the work.

The country's potential tubular goods capacity is about to be increased by the addition of two plants. The Youngstown Sheet & Tube Co., has placed contracts for a seamless tube mill, for Youngstown, O. The roll stands involved are to be built by two German companies while the auxiliary equipment will be furnished by American concerns. The Weirton Steel Co., Weirton, W. Va., announces it is about to enter the pipe-producing field and will erect a tube mill at Weirton, W. Va., with an initial monthly capacity of 10,000 to 12,000 tons. The Youngstown mill will involve the expenditure of about $3,000,000 and the Weirton plant also will involve a large investment. Both will serve the oil fields.

Tankage inquiries are on the increase in the Chicago territory but on the decline elsewhere. There they are looking for numerous inquiries from the south and southwest, particularly Louisiana. The Humble Oil Co., Baytown, Tex., has increased its tank inquiry to involve 4000 tons of plates instead of 1000 tons. Pittsburgh fabricators recently were called upon to figure on six small tanks for this company taking about 500 tons. Plates are becoming somewhat stronger in the Pittsburgh territory with some makers endeavoring to establish a 2.10 cent minimum. Others still quote 2.00 cents to meet competition.

In tin plate a particularly strong situation is encountered, with mills well filled with business and operating on that account, at an average rate above 90 per cent. Bookings now carry them well through the third quarter, with the opening of books for that period at unchanged prices based on $5.50, per base box, Pittsburgh. The Texas Co., bought 100,000 base boxes for the third quarter shipment and the Standard Oil Co. of New Jersey closed on 500,000 base boxes, the American Sheet & Tin Plate Co., through the United States Steel Products Co. (since the tonnage is for export) receiving half the tonnage, the remainder being distributed between at least two Independent companies, understood to be the Bethlehem Steel Corp., and a West Virginia maker. The Standard Oil inquiry originally was for 150,000 boxes and it then was increased to 450,000. The Nippon Oil Co., has not issued its regular inquiry as yet but this may come in this week.

F. W. Burford, Skelly Oil Co., and H. G. Shiveley, Akin Gasoline Co., taking in the convention of the Association of Natural Gasoline Manufacturers at Tulsa

The Standard Oil Co., of New Jersey ordered four 2-ton underhung handpower cranes with 12-foot span, for its Newark, N. J., garage from the Wright Manufacturing Co.

The Gilliland Oil Co., Louann, Ark., has ordered the engine and compressor equipment for its gasoline plant from Clark Bros. Co., consisting of eight 160-horsepower units.

The Standard Oil Co., of Louisiana, has ordered 18 large pumps of the California type from the National Transit Pump & Machine Co., Oil City, Pa., a subsidiary of the National Transit Co. This order will keep part of the shops operating two shifts for a month.

The Paragon Refining Co., Toledo, O., has placed a general contract with Cross-Widdell Engineering Co., Kansas City, for an oil refinery which with general equipment will cost $250,000.

The Standard Oil Co., 720 Maple street, Mankato, Minn., will take bids this month on a 2-story machine shop, automobile service and company car-truck repair shops to cost $35,000. M. H. Chesbrough is local manager at Mankato.

The Marland Refining Co., St. Joseph, Mo., of which R. J. Brown is manager, is having plans drawn for a new distributing and barreling plant to cost $100,000 with equipment. A service and repair works for the company's motor trucks and cars, also will be built.

The Oriental Oil Co., Oriental Station, near Dallas, Tex., is considering the rebuilding of its storage and distributing plant damaged by fire April 13, causing a loss of $75,000 to buildings and equipment.

The Transcontinental Oil Co., Benedum Trees building, Pittsburg is completing plans for an oil refinery in the vicinity of Fort Worth, Tex., to include a compounding works, a barreling department and a lubricating oil works. The entire program will involve more than $600,000.

New Pool in Kentucky

IRVINE, KY., May 2.—On Red Lick, a tributary of Station Camp creek in Estill county and about three miles southwest of the old Station Camp pool, Chiles and Miller have brought in two wells, one on the George Cain farm and the other on the Anderson Isaacs. These wells, which appear to have opened a small Irvine (corniferous) sand pool, are each good for about eight barrels or better. They are around 600 feet deep and have eight to ten feet of pay sand. No dry holes are near.

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Okla. Production Off 10,000 Barrels; All Active Fields Declining

By A. F. Hinton
N. P. N. STAFF WRITER

TULSA, May 2

OKLAHOMA production declined more than 10,000 barrels during the past week, and has gone off about 16,000 barrels in the past three weeks. The state's output is now estimated at 447,200 barrels daily, as compared with 482,500 barrels January 1. Its present figure is only 2000 barrels greater than the low point for 1925, which was reached during the week ending March 21, with about 445,000 barrels a day.

All active fields which have been factors in the course of Oklahoma production during the past months are now apparently embarked upon permanent declines, and with the exception of Garber, nothing has yet been developed which now shows signs of being able to take the place of any of these fields to replace their lost flush production. Garber itself is an unknown quantity, and the extent to which it must be reckoned with in the general situation cannot be known probably until well along in the late summer.

The crude market, looking at it from an Oklahoma standpoint strictly, is strong, and is undoubtedly in better shape than it has been this late in the spring for several years past. Usually, at this time of the year, known sources of new production have been discovered and several new fields are in process of rapid development. While refiners are not searching for crude as keenly as they were a month or two ago, the larger companies are still not turning down any connections and it is safe to say that no desirable crude is going begging for want of a connection. According to what information is available on the subject, withdrawals from storage in order to meet requirements in addition to daily runs are still going on.

Tonkawa was the principal factor in the past week's production decline, as this field dropped off 5795 barrels to a daily average of 61,675 barrels. This production was obtained from 760 wells, the same as the preceding week. The deep sand wells were 97 in number, also showing no change from the week before. Burbank recorded a substantial decline, losing 1805 barrels, and averaging 58,185 barrels daily, from 1718 wells, a gain of three over the week. The Osage county side of the field, with 1523 wells, produced 46,715 barrels daily, while the Kay county side accounted for 11,470 barrels from 195 wells.

Cromwell remained almost stationary in production the past week, its daily average of 41,955 barrels being only 85 barrels greater than that of the preceding week. The field reported 344 wells, a gain of four. Papoose declined 1850 barrels, and averaged 24,350 barrels daily, in spite of six new wells which brought its total to 161. Wewoka showed but little change, declining 130 barrels to 13,700 barrels daily. This field had 120 wells, the same as last week.

Among the smaller fields, South Weleetka had 28 wells, the same as the week before and averaged 1990 barrels daily, a gain of 75 barrels. Braman had 13 wells, the same as the preceding week, and fell off 50 barrels to 2495 barrels daily. Hubbard, another northwest Kay county field, added four new wells for a total of 14, but increased its production only 180 barrels to 2204 barrels daily. The one-well Yeager field, north of Holdenville, held up well at 420 barrels daily, a loss of 17 barrels as compared with the preceding week.

Wells Completed

In Oklahoma, during the week just closed, 86 wells were completed, of which 50 were oil wells, six were gas wells, and 30 were dry holes. This is a considerable decline as compared with the preceding week, when there were 110 completions, divided 71 oil wells, 14 gas wells, and 25 dry holes. The 50 oil wells included in this week's report had a total initial production of 12,662 barrels, giving them an average of 253.2 barrels per well, which is getting down pretty low for Oklahoma. Last week, 71 wells brought in 19,015 barrels of new production, with a per-well average of 267.8 barrels.

Completions reported from Kansas this week totaled 41, of which 33 were oil wells, and eight were dry holes, with no gas wells. Last week, there were 35 Kansas completions, divided 24 oil wells, one gas well, and 10 dry holes. The 33 oil wells in this week's report had a total initial output of 3483 barrels, or 105.5 barrels average per well. Last week, 24 wells brought in 2307 barrels of new production, with a per-well average of 96.1 barrels. Average initial production of Kansas wells seldom varies far one way or the other from 100 barrels.

Garber Developments

Sinclair Oil & Gas Co. No. 25 Belveal, deep sand discovery well in the Garber field was drilled three feet deeper during the past week, but without causing more than a slight increase in production. This makes a total of six feet drilled below the big pay without causing the wells output to increase materially. Geologists seem now generally of the opinion that this well is producing from the Siliceous lime, considerably below the Wilcox sand, and believe that the big pay was altogether in this formation. The well is now 4397 feet deep, or 20 feet in, after having topped the sand at 4377. Early in the week, it was producing 2450 barrels daily. The day after being deepened, it made 2500 barrels but the next day had dropped back to about 2250 barrels, which is approximately its present production.

Although it will probably be along late in July before the wells now starting for the deep sand begin coming in, development in the meantime will add

Drilling Operations in Oklahoma, Kansas and N. Texas

	May 2 — Week Ending — April 25									
	Loc.	Rigs	Drg.	S.D.	Total	Loc.	Rigs	Drg.	S.D.	Total
OKLAHOMA										
Burbank	..	3	25	14	42	...	3	25	14	42
Other Osage	11	17	78	11	117	11	17	78	11	117
Bristow-Cushing	10	33	130	31	204	9	24	129	34	196
North Oklahoma	12	26	93	57	188	11	31	93	52	187
South Oklahoma	9	20	147	56	232	8	36	164	80	288
Muskogee	..	12	29	21	62	...	12	28	19	59
Okmulgee-Bristow	5	58	165	21	249	4	66	161	26	257
Tonkawa	0	3	25	14	42	...	3	25	14	42
Wewoka-Cromwell	18	21	246	30	315	22	33	239	22	316
Total Oklahoma	65	193	938	255	1451	74	218	939	239	1470
KANSAS	107	80	277	128	592	112	80	294	127	613
NORTH TEXAS										
Eastland County	..	1	21	9	31	...	1	23	6	30
Stephens County	..	12	34	30	76	...	12	35	32	79
Texas Panhandle	..	16	30	11	57	...	14	30	12	56
Mexia District	..	22	26	8	56	...	24	26	6	56
E. Texas Wildcats	..	7	10	21	38	...	10	9	21	40
W. Texas Wildcats	..	23	116	80	219	...	26	121	88	235
Wichita Falls	..	67	165	54	286	...	77	162	49	288
Total N. Texas	...	148	402	213	763	...	164	406	214	784
GRAND TOTAL	172	421	1617	596	2806	186	462	1639	580	2867

many good wells in the 2300-foot sand to the field's total. This sand is being developed mainly through deepening of old wells, and as it is usually necessary to drill only 200 feet or so it does not take much time nor entail much expense to put them down.

Several good wells have been completed in this sand recently, among them the Roxana Petroleum Corp. No. 15 Schroeder, in the NEc NW SW of 18-22 3W, which started off at 450 barrels in sand from 2312 to 2325 feet. Sinclair Oil & Gas Co. No. 7 Hartley, in the SEc SW NW of 18-22-3W, a north offset to the Roxana well, came in making 500 barrels in sand from 2294 to 2304 feet. Cosden & Marland No. 40 School Land, in the NEc SE 13-22-4W, produced 650 barrels initial, in sand from 2319 to 2333 feet.

A number of wells are starting up, or locations have been made, in the territory lying west and northwest of the Garber field proper, and will make interesting tests while providing valuable data on subsurface conditions in territory considerably off-structure as far as the field's upper sands are concerned. Among these, Hopper et al. have contracted to go 4500 feet in their test in the NEc SW 27-22-4W, a mile and a half west of production, and are building rig for rotary tools. Between that test and Garber production, Heald-

Completions in Oklahoma and Kansas Week Ended May 2

OKLAHOMA

Carter County

Company	Well No.	Location	Depth	Initial Production
Magnolia	5	C NW NW NW 25-2-3W	2760–2785	75
Magnolia	11	C SW SW NE 27-2-3W	2593–3683	8M
Merrick-Coe	3	NEc NW SW 9-3-2E	2252–2391	90
Amerada	4	SWc NE NE NW 20-5-1E	1797–1819	75
Amerada	5	CNL NW SE 28-5-1E	1188–1207	140

Creek County

Midwest & Gulf	1	SWc NE 17-19-9E	1217–1226	5
Wood-Farren	3	NEc NW SE 21-17-9E	2509–2549	20
Billingslea-Skelly	3	NWc SE SW 30-15-9E	3054–3066	150
Tibbens	8	CSL NE SW 30-15-9E	3032–3036	960
Waite Phillips	3	SWc NE NE 23-17-8E	T.D.3142	Dry
Gled-Shaffer	1	NEc NE SW 17-19-9E	T.D.3417	Dry
R. T. Wright et al	1	NWc SE 15-17-10E	T.D.2980	Dry
Stoner	1	NEc NE SW 19-17-10E	T.D.3060	Dry
Ireland et al	4	NWc NE NE 17-16-12E	T.D.2383	Dry
Texas	2	NEc NW 27-15-10E	T.D.3143	Dry

Garfield County—Garber

Sinclair	7	CSL SW NW 18-22-3W	2294–2300	250
Sinclair	18	C NW SE NW 30-22-3W	1833–1841	100

Hughes County

Mid-Kans	3	C NW NE SE 4-9-11E	2922–2939	85

Kay County

Ona-Carter	1	C SE SE SW 17-29-1E	1970–1981	28M
Grand Island	1	C SE NE NW 15-28-1E	T.D.3418	Dry

Kay County—Hubbard

Blackwell	3	SE NE SE 9-27-1W	2360–2361	200
Blackwell	5	SWc NW SW 10-27-1W	2351–2354	90
Marland	2	SWc NE 1-26-2W	2550–2555	902
Marland	3	SW SE NE 1-26-2W	2548–2551	410

Lincoln County

Magnolia	1	SEc SE SW 34-15-5E	3390–3464	350
Skelly	1	NEc NE NE 7-15-6E	3780–3788	70
Prairie	3	C SE NE NW 3-14-5E	3398–3454	900

Love County

Simms	1	SEc NE SE NE 29-6-3E	T.D.3445	Dry

McIntosh County

Wigton-Long	2	CSL SW SW 3-12N-14E	T.D.1820	Dry

Muskogee County

Leaseburg	3	SWc SE SE 29-14-16E	1725–1772	10
Iona	5	SWc SE NW 31-15-15E	T.D.2195 OWD	Dry
Hutchinson	6	NWc SE SW 35-15-16E	T.D.1848	Dry
Lampton	1	CEL NE NE 13-15-17E	T.D.1251	Dry

Okfuskee County

Atlantic	3	CSL SW SW SE 36-12-10E	3034–3049	50

Okmulgee County

Detrick	7	C NE NE 2-14-11E	2326–2335	35
Sheldon et al	4	SWc SE NW 34-16-12E	T.D.2315	Dry
R. Poe	1	SEc SW NW 34-16-12E	T.D.2200	Dry
Holly	1	NEc SW NW 33-13-12E	T.D.3164	Dry

Osage County

Grimes-Gillespie	15	SW NW SW SE 31-21-12E	1433–1473	35
Tidal Osage	41	SE SW NW 34-22-10E	2264–2297	245
Superior	1	NE NW 10-23-8E	2380–2418	5
Foster-Norwood	30	CWL E½ W½ SE 23-24-9E	2071–2163	25
Barnsdall	17-A	SW NW NW 12-24-10E	2226–2232	5
Barnsdall	3	NW SW NW NW 11-24-11E	1689–1723	25
Titus et al	5	NW NE NW NE 12-24-11E	1625–1723	25
Lawson	13	NE SW SW NW 28-25-8E	1105–1115	10
Texas	1	SEc 25-26-9E	2168–2186	110
Owen Osage	319	C SW SW 3-22-10E	T.D.1986	Dry
Peters-Markham	13	CWL E½ W½ 4-23-9E	T.D.2149	Dry
Rex Pyramid	1	SE NE 29-24-10E	T.D.2114	Dry

Osage—Burbank

Phillips	6	C NE SW NE 11-27-5E	3051–3104	500
Phillips	6	C NE SW SW 12-27-5	2983–3033	500
Carter	13	C NW NE NW 13-27-5	2998–3067	100
Carter	14	NE NW 13-27-5	2991–3054	240
Carter	15	C SW NE NW 13-27-5	2965–3024	5
Texas	12	C SW NE NW 18-27-6	2915–2983	300
Texas	14	C SE NW NW 18-27-6E	2918–2972	370

Pawnee County

Watchorn	7	C SE SE SW 33-23-3E	4099–4144 OWD	355
Jim Glenn	2	CEL NE SE 16-20-6E	3013–3132 OWD	7M
T. B. Slick	1	SEc SE NW 1-21-5E	T.D.3640	Dry

Payne County

O'Herin-Hughes	1	SWc NW 1-17-5E	T.D.1760	Dry

Seminole County—Cromwell

Mutual	5	C SW NW SE 33-11-8E	3310–3410	310
Sinclair	8	C SE NE SE 33-11-8E	3347–3395	885
Sinclair	1	C SW SW NW 34-11-8E	3404–3427	625
McMan-Magnolia	3	C SW NE SW 34-11-8E	3350–3387	1200
Sinclair	3	C SW NE SE 5-10-8E	3417–3459	985
Magnolia	1	C SE SE NE 5-10-8E	3419–3600	20
Houston	3	C NW NE SE 15-10-8E	3480–3535	560
Pure	12	C NE NW SE 9-10-8E	T.D.3384	Dry
McMan	4	C SE SW SE 10-10-8	T.D.3504 OWD	Dry
Shaffer	1	C SW NW NE 10-10-8	T.D.4187	Dry
Snowden et al	3	C NE NW NE 15-10-8E	T.D.3407	Dry
Snowden et al	4	C SE NW NE 15-10-8E	T.D.4000	Dry
Carter	5	C NW SW NW 16-10-8E	T.D.3560	Dry

Stephens County—Duncan

Magnolia	1-A	SEc 15-1-8W	1598–1609	2M
Crump-Beard	4	SWc NW NW SE 32-1-8W	2258–2267	35
Crump-Beard	1-A	SEc NW NW SE 32-1-8W	2257–2266 OWD	30
Clark-Cowden	2	C NE SW SW 18-2-7W	1411–1417	2M
Winkler et al	1-A	C SW SE SE 18-2-7W	1367–1379	50

Tulsa County

Sand Springs Home	8	SEc NW 5-19-12E	2077–2089	60
Thornton et al	14	SWc SE SW 20-19-12E	2095–2139	80
Riverland	1	SEc NE NE 15-16-12E	1890–1910	5M
Mays Bros	2	NWc SW NW 30-17-14E	T.D.2150	Dry

Wagoner County

Webb	4	CSL N½ NE NW 10-17-16E	T.D. 710	Dry
Gillam	5	SEc SW NW SE 10-17-16E	T.D. 732	Dry
Lumpkins	4	CSL N½ NW SW 28-18-16E	T.D. 627	Dry

KANSAS

Barber County

Brown	1	NEc SW NE 23-30-14W	T.D.3741	Dry

Butler County

Hoyt	1	SEc 21-24-3E	T.D.2850	Dry
Vickers	1	SEc SW 32-24-4E	T.D.2755	10
Vickers et al	1	NWc 2-25-3E	2725–2740	75

Chautauqua County

Denman Bros	1	SEc SW NE 8-34-10E	1490–1510	4
Prairie	76	C SE NW SE 22-33-11E	1230–1270 OWD	212
Noble	1	NWc NE 7-35-13E	T.D. 723	Dry

Coffey County

Mendenhall et al	7	C NE SW 14-23-13E	1804–1846	25
Manhattan	12	CSL SW 14-23-13E	1777–1835	20

Cowley County

Gypsy	1	NWc SE 13-32-4E	2554–2562	200
Marland-Embry	2	SEc SW NE 13-32-4E	2568–2577	130
J. A. Hull	9	NWc SW NE 24-32-4E	2973–3005	160

Cowley County—Rainbow Bend

Marland	1	NWc 10-33-3E	T.S.3511	200
W. Phillips-Marland	1	SEc 18-33-3E	T.S.3233	75
Slick-Marland	1	SEc NW 19-33-3E	3180–3202	75

Elk County

Roth	9	NWc SE NE SW 12-29-8E	2005–2037	50
Watchorn	4	NWc NE NW 3-30-9E	2253–2277 OWD	20
Dollie	2	C NE SE 35-30-9E	2333–2344	15
Anderson et al	2	NEc SE 21-31-9E	2282–2308	45
Pure	1	NWc SW NW 13-31-10E	1340–1352	80
Southwestern	3	SEc SW NE 14-31-10E	1335–1346	60

Finney County

Garden City	1	SEc 36-31-30W	T.D.2890	Dry

Greenwood County

White Eagle	1	SEc SW NW 7-22-11E	T.D.2317	Dry
Prairie	11	NW SE SW 14-24-9E	2100–2211	197
Theta-Kans	2	SEc SW 8-22-10E	2329–2350	110
Phillips	1	SWc SE SE 20-22-10E	2452–2471	50
Fisher et al	1	SEc SW NW 12-22-11E	1801–1839	200
York State	7-A	NEc SW 32-22-11E	1931–1994	375
Skelly	1	SEc NW 2-23-9E	2328–2355	200
Greenland	3	SWc NW SE 10-23-9E	2320–2353	150
McGinnis-Bittler	6	SEc NE NW 15-23-9E	2337–2377	100
Mid-Kans	21	SWc SE NE 31-23-10E	2294–2344	100
Roxana	5	SEc NE NW 34-23-9E	2175–2223	70
Gypsy	7	SWc NW NE 34-24-9E	2175–2199	75

Lyon County

Southwestern	1	SEc 29-21-12E	T.D.1990	Dry
Landon et al	1	NWc SW SW 32-21-12E	T.D.1908	Dry
McMan	1	SEc SW SE 29-21-12E	1901–1921	40

Russell County

Valerius	5	NEc SE SW 8-12-15W	2959–2967	250
Valerius	3	NWc SW SE 8-12-15W	2967–2973	100

Woodson County

Parrish et al	1	SEc NE NW 29-23-15E	1500–1504	10
Superior	1	SEc NE 14-25-13E	T.D.1520	Dry

ton Oil & Gas Co. have made a location in the NE NW of 26-22-4W.

Magnolia Petroleum Co. will drill a test a mile north and two miles west of the Belveal discovery well, in the NEc of 15-22-4W, where it has blocked up considerable acreage. In the north end of the field, a mile and a half due north of the deep sand discovery, Roxana Petroleum Corp. has acquired the lease on the NE¼ of 12-22-4W, but has not announced plans for drilling on it as yet. The Whitney estate has made a location in the SEc SW NE of 18-22-3W, on property taken away from the Sinclair company through litigation. The well will be drilled by Haley, Garber & Pulse, of Enid.

New Pool West of Cromwell

Much interest was aroused during the past week by an oil showing in a wildcat test six miles due west of Cromwell, although the enthusiasm was dampened somewhat when the well picked up water in the bottom of the hole. This test is the No. 1 Lack of Charles J. Wrightsman and James H. Gardner, in the SEc NW of 31-10-7. It topped a sand at 3743 and showed for two million feet of gas and about 30 barrels of oil from the top. The well was drilled on down to 3749 feet, or six feet in, where salt water was found. The operators believe that they are at or near the Cromwell sand horizon and will drill deeper after having set casing. Previous to drilling the last foot of hole, in which the water made its first appear-

Gulf Coastal Texas Completions, Week Ended May 2

Company	Lease—Well	Field	Depth	Prod.
Humble Oil & Refining Co.	Chambers "A" 2	South Dayton	3550	1200
Humble Oil & Refining Co.	Pickett "C" 1	South Dayton	3540	400
Humble Oil & Refining Co.	Pickett "C" 2	South Dayton	3550	400
Humble Oil & Refining Co.	Schade 1	South Dayton	3690	300
Gulf Production Co.	Schade 1	South Dayton	3650	200
Gulf Production Co.	Schade 2	South Dayton	3650	175
				9% B. S. & W.
Gulf Production Co.	Williams 2	South Dayton	3600	500
				20% B. S. & W.
Sun Oil Company	Schade 2	South Dayton	3550	410
Sun Oil Company	Schade 3	South Dayton	3610	1200
Vacuum Oil Company	Barrett 6	South Dayton	3520	700
Winfree et al.	Pickett 1	South Dayton	3475	425
Abercrombie et al.	Harrison 1	South Dayton	3730	300
Beaumont Petroleum Co.	No. 24	Goose Creek	2750	100
Gulf Production Co.	T. W. Davis 19	Big Creek	3250	2000
Sun Oil Co.	Williams 64	Saratoga	1170	20
Humble Oil & Refining Co.	T. & W. 12	West Columbia	370	15

Completions in North Louisiana and Arkansas, Week Ended May 2

LOUISIANA
Cotton Valley

Company	Well	Location	Depth	Yield
Humble O. & R. Co.	Gray No. 5	26–21–10	2545	250
La. Oil Refining Corp.	Bodcaw No. 2	13–21–10	2512	200
La. Oil Refining Corp.	Gray No. 5	28–21–10	2585	125
Ohio Oil Co.	Gray No. 3	26–21–10	2565	100
Ohio Oil Co.	Gray No. 6	26–21–10	2567	150
	Bossier parish—Bellevue			
G. W. Weatherbee	Fee F-7	23–19–11	387	15 m ft. gas
	Caddo Parish			
Dixie Oil Co.	Robertshaw No. 65	13–21–15	2327	30
	Claiborne Parish			
Woodley & Collins	Oakes No. 1	8–20– 5	3005	s. w. aband.
	Bienville Parish			
Roxana Pet. Co.	W. B. Bryan et al No. 1	30–17– 6	3720	s. w. aband.
	Ouachita Parish			
Palmer Corp.	Potts No. 2	12–19–4E	2160	35 m. ft. gas
	TEXAS			
	Panola County			
J. C. McCormick	Lawless No. 2	Mays HRS	1950	5 m. ft. gas
	ARKANSAS			
	Smackover			
Cumberland Pet. Co.	Reynolds No. 6	23–15–17	2305	50
Guy Freeling	Gibson No. 3	26–15–17	2335	25
Hunt et al.	Myatt A-3	22–15–17	2385	65
McCorkle et al.	Smith A-2	25–15–17	2307	25
Murdock et al.	Riley No. 1	22–15–17	2330	35
J. D. Reynolds	Berg No. 1	18–15–17	2295	s. w. aband.
J. D. Reynolds	Fee No. 5	25–15–17	2300	30
Texas Oil Co.	Reynolds No. 7	23–15–17	2287	50
Houston Oil Co.	B. T. Laney No. 10	31–15–15	2405	s. w. aband.
Pure Oil Co.	Cunningham No. 2	30–15–15	2040	100
Standard Oil Co.	R. Bennett No. 3	33–15–15	2360	200

Company	Well	Location	Depth	Yield
Amerada Pet. Co.	Calloway No. 3	4–16–15	2360	5000
Amerada Pet. Co.	Calloway No. 4	4–16–15	2345	1500
Amerada Pet. Co.	Calloway No. 5	4–16–15	2362	2500
Bailey & Trimble	Lawton No. 3	10–16–15	2433	1000
Coates & Sowell	Bilyew No. 2	8–16–15	2465	3000
Eason et al.	Palmer No. 4	9–16–15	2490	2000
El Dorado—Union Oil Co.	Umstead No. 2	4–16–15	2370	500
Federal Pet. Co.	Childs No. 4	8–16–15	2655	dry aband.
George & Jones	Umstead No. 5	4–16–15	2360	5000
Hickman et al.	Graves No. 10	3–16–15	2377	5000
Humble O. & R. Co.	Flannigan No. 6	6–16–15	2387	s. w. aband.
Humble O. & R. Co.	A. Flenniken B-3	9–16–15	2455	3500
Humble O. & R. Co.	A. Flenniken B-4	9–16–15	2435	3000
Imperial O. & G. Co.	Murphy No. 4	9–16–15	2490	10,000
Kennebrew et al.	Williams No. 5	3–16–15	2384	500
Murdock et al.	Bilyew No. 4	8–16–15	2470	2500
O. G. Murphy	T. C. Murphy No. 2	9–16–15	2447	500
Ohio Oil Co.	Murphy No. 5	9–16–15	2410	5000
Pure Oil Co.	Dumas No. 1	16–16–15	2385	s. w. aband.
Ramage et al.	James No. 7	6–16–15	2400	s. w. aband.
S. Richardson	Lawton No. 3	10–16–15	2465	1500
Roxana Pet. Co.	Flenniken B-2	5–16–15	2362	400
Shreveport Oil Corp.	Umstead No. 2	4–16–15	2335	500
Smitherman-McDonald	Hicks No. 1	23–16–16	2025	50
Standard Oil Co.	Hardy Murphy No. 5	4–16–15	2365	2000
Standard Oil Co.	Hardy Murphy No. 6	4–16–15	2370	1000
Standard Oil Co.	McClanahan No. 11	6–16–15	2395	5000
Sun Co.	Hays No. 8	3–16–15	2360	1000
Sunny Jim Oil Co.	Flenniken No. 6	9–16–15	2475	2000
Texas Oil Co.	Calloway No. 3	4–16–15	2353	4000
United Central Oil Corp.	Murphy No. 4	8–16–15	2512	5000
Nye Wilson	Hays No. 5	4–16–15	2353	20 m. ft. gas
Woodley Pet. Co.	Umstead No. 4	4–16–15	2360	2000
Gulf Refining Co.	J. H. Alphin No. 9	10–16–15	2395	5000
Gulf Refining Co.	Flannigan No. 9	5–16–15	2375	1500
Gulf Refining Co.	T. C. Murphy No. 1	9–16–15	2395	700
Gulf Refining Co.	L. Werner S.M.Co.No.31	5–16–16	3390	junk. aband.

Summary of Drilling Operations Rocky Mountain District in April, 1925

WYOMING

Districts	Rigs	Drg.	Comp.	Dry	Prod.
Baxter Basin	3	1	1	1	000
Big Muddy	2	1	0	0	000
Big Horn Basin	4	6	1	1	000
Carbon County	4	4	2	1	1000
Elk Basin	2	1	1	1	100
Fremont County	5	4	1	0	10
Grass Creek	2	2	1	0	80
Lance Creek	5	2	2	2	000
Natrona County	4	3	1	1	000
Osage	5	5	2	0	40
Rock River	1	1	0	0	000
Salt Creek	21	58	37	2	5200
Teapot Dome	18	00	00	0	000
Miscellaneous	28	41	3	3	000
Totals in Period	104	129	52	12	6430
Totals last Period	94	130	36	12	4925
Difference	10	— 1	16	0	1505

MONTANA

Kevin-Sunburst	21	24	11	4	6100
Cat Creek	4	3	4	1	150
Miscellaneous	23	25	5	5	000
Totals in Period	48	54	20	10	6250
Totals last period	43	51	18	8	700
Difference	5	3	2	2	5500

OTHER STATES

Districts	Rigs	Drg.	Comp.	Dry	Prod.
North Dakota	2	2	0	0	000
South Dakota	2	2	1	1	000
Western Nebraska	2	1	1	1	000
Western Kansas	9	10	2	1	100
Idaho	2	2	0	0	000
Nevada	2	1	0	0	000
Utah	11	14	1	0	Gas
Colorado	21	33	2	1	Gas
New Mexico	15	18	4	1	900
Arizona	2	1	1	1	000
Totals in Period	68	84	12	6	1000
Totals last Period	66	84	20	10	3000
Difference	2	0	— 8	— 4	—2000

RECAPITULATION

Wyoming	104	129	52	12	6430
Montana	48	54	20	10	6250
Other States	68	84	12	6	1000
Totals in Period	220	267	84	28	13,680
Totals last Period	203	265	74	30	8,265
Difference	17	2	10	— 2	5,055

If you want to convert gas oil, fuel oil or topped crude into gasoline, you want the Dubbs Cracking Process, and only the Dubbs

If you want to convert kerosene or gas oil into fuel oil and pay for the privilege of doing it, use the other fellow's process

Universal Oil Products Company
Owners of the Dubbs Process
310 South Michigan Ave
Chicago Illinois

ance, the well was making about one bailer of 38 gravity crude an hour.

The same operators recently abandoned their test in 26-11-7, northwest of Cromwell, after having drilled it to around 4400 feet, and it is now being plugged. There is no reason to doubt that other fields similar to Cromwell and Papoose will be found in the general Seminole-Hughes area but much expensive wildcatting will be necessary to prove them up.

Braman Pool Extended

In the Braman pool, northwest of Tonkawa, the Comar Oil Co. extended the proven area a half-mile south when it drilled in its No. 1 Murphy, in the NWc SW NE of 28-29-1W. This well came in making 520 barrels in sand from 1968 to 1971 feet. This completion, besides opening up more territory for development, probably places the field's production above 3000 barrels a day. Other developments, however, were not so favorable, as the Comar had a hole full of water in sand from 1915 to 1924 feet in its No. 4 Buell in the NEc SW NE of 21-29-1W. Its No. 3 Priboth, in the SWc SE NW of 21-29-1W, got the sand from 1903 to 1922 feet, where it had only a show of oil and was making some water. The same company's No. 4 Duncan, in the NWc NE SW of 21, on the discovery farm, had the sand from 1908 to 1924 feet, where it made a small amount of oil and then began to show water.

OSKALOOSA, IA.—Garrett Oil Co. recently moved its offices to a downtown location, locating with the Holland Furnace Co. The company has just opened a new station at Tracey, Ia., and report a very good business, according to E. R. L. Boyd, district manager at Wichita, Kan. for Waverly Oil Works Co. The Garrett company distributes Waverly products in this territory.

Highest Average Initial Production in Okmulgee

OKMULGEE, OKLA., April 24.—The record for the highest average initial daily production of any state or district in the country, during 1924, which was 570 barrels, was made by the Okmulgee district, which comprises Okmulgee, Okfuskee, Hughes, Seminole and McIntosh counties, according to a booklet published by the Okmulgee District Oil & Gas Association, giving detailed information on drilling statistics and comparisons of the petroleum industry in the district with the rest of the country.

The booklet shows that 2,234,880 acres of the 3492 square miles in this district are potential oil and gas land; that this district alone produced during 1924 26,512,236 barrels of oil, giving it seventh place among the states, this amount being as much as the total production of Tennessee, New Mexico, Colorado, Indiana, Montana, West Virginia, Ohio and Kentucky; that it had the highest record of wells drilled in 1924, the total being 1051, of which 640 produced oil, 107 gas, and 304 being dry; that it ranked fourth among the states having the largest initial daily production during 1924, it being 364,673 barrels.

Total production for the past seven years in the Okmulgee district was 109,029,801 barrels, representing a value of $237,169,132. Value of natural gasoline produced the past seven years was $23,000,000, value of natural gas produced $20,000,000, refinery profits, lease and royalty bonuses, $19,830,868, and total wealth in the seven years was $300,000,000.

The Okmulgee district today has 19 oil gathering pipe line systems, eight natural gas gathering pipe line systems, 60 natural gasoline plants with capacity of 100,000 gallons daily, five oil refineries with capacity of 20,500 barrels daily, four transcontinental trunk pipe lines to the Gulf Great Lakes and Atlantic ports and has 2492 square miles of area still untested for oil and gas.

Gravity of the oil produced in the Okmulgee district is given in the booklet as follows:

Pool	Degrees Baume
Bald Hill	38 to 41
Beggs	35 to 39
Cromwell	39 to 41
Deaner	37 to 40
Henryetta	36 to 39
Lyons	37 to 40
Okemah	36 to 39
Phillipsville	39 to 43
Tiger Flats	36 to 40
Wewoka-Holdenville	38 to 41
Wetumka	38 to 41

Add New Courses in Oil Engineering

NORMAN, OKLA., May 1.—So great has been the interest in the school of Petroleum engineering, organized in the University of Oklahoma last fall by H. C. George, that the faculty will be increased and new courses given next year to meet the demands of students anxious to obtain training in every-day problems of oil field management.

When the school was first opened, 39 students enrolled in the course, "Drilling and Developments." Nine were graduated in January, and 28 enrolled in the second course, "Production Equipment and Methods," while 37 enrolled in the course in drilling which is being given again this semester.

Fred W. Padgett, associate professor of chemistry, who is well known through the southwest for his research work in petroleum refining, will be transferred to the petroleum engineering school next fall and will teach seven courses along this line.

Completions in East and North Texas, Week Ended May 2

Company	Well No. Farm	Location-Survey -Section	Depth	Init. Prod.
Archer County				
Humble	5-Ragle	Newman	1081–1086	30
Statelon et al	1-Parmenter	H. & T. C. 6	T. D. 1960	Dry
Harry Lewis	1-Wilson	Geraldine 583	T. D. 1650	Dry
Burns-Maxson	1-Parrish	H. & T. C. 26	T. D. 1623	Dry
Underwood Drlg	1-Reilly	H. & T. C. 6	T. D. 2004	Dry
Texas Unity	1-Wilson	A. T. N. C. 102	T. D. 1657	Dry
Crosslin-Atlantic	1-Kreiter	Mathews	T. D. 1613	Dry
Archer et al	2-Coffield	Richardson	T. D. 1630	Dry
Atlantic	2-Hayter	T. E. & L. 1598	T. D. 1354	Dry
Gulf Prod	6-Rogers	T. E. & L. 2406	T. D. 1344	Dry
Baylor County				
Monroe et al	1-Stephens	T. E. L. 3128	T. D. 1804	Dry
Jones	1-Stevens	T. E. & L. 3110	T. D. 1825	Dry
Duke-McGee	1-Depprey	Burnaham	T. D. 1815	Dry
Carson County				
Texas	5-Burnett	I. & G. N. 114	2892–2898	135
Clay County				
Gulf Prod	5-Worsham	T. & N. O. 3	3360–3405	237
Eastland County				
Parsons et al	2-Moates	Howell	T. D. 3114	11M
Eldorado	2-Beard	H. & T. C. 10	T. D. 3760	Dry
Freestone County				
Flynn et al	1-Evans	Ritchie	T. D. 3175	Dry
Henderson County				
Penn et al	1-Murphy	Gardner	T. D. 3237	Dry
Hutchinson County				
Wilson-Gresham	1-Whittenburg	H. & T. C. 73	T. D. 2913	100
Limestone County				
Pure Oil Co	16-Smith	McNulty	2979–3009	120
Navarro County				
Humble	1-Smith	Havens	1605–1650	53
Richardson et al	2-Millican	Latham	T. D. 3197	Dry
Reagan County				
Big Lake	18-Univ	University 25	2989–2928	8000
Stephens County				
T. P. C. & O	6-Adams	T. P. 65	2145–2230	250
Texas	11-Keathley	T. D. 25	2397–2417	80
Throckmorton County				
Riter-Foster	1-Stubblefield	T. E. L. 991	2974–2982	90
Wilbarger County				
Bridewell-Heydrick	8-Stephens	H. & T. C. 83	2267–2295	75
McCamey-Sherrin	19-Stephens	H. & T. C. 83	1270–1307	40
Humble	15-Stephens	H. & T. C. 83	1277–1398	125
Humble	19-Stephens	H. & T. C. 83	1285–1316	200
Wichita County				
Comet	1-Waller	Tarver S. L. 6	T. D. 2222	Dry
Leath-Warren	1-Fassett	S. A. & M. G	T. D. 1884	Dry
Young County				
The Sun Co	1-Rogers	Holeman 1	T. D. 1355	Dry
Gulf Prod	2-Gambril	B. B. B. & C. 1	T. D. 1390	Dry
Plains	1-Campbell	T. E. L. 236	T. D. 1047	Dry
Wilson	1-Logan	T. E. L. 234	T. D. 1076	Dry
Everest et al	1-Womack	Young	T. D. 1708	Dry
F. H. & E. et al	1-Wilson	T. E. L. 1473	T. D. 1217	Dry
Cox-Foster	1-Wilson	T. E. L. 1473	T. D. 1209	Dry
Andrade et al	1-Goss	T. E L. 313	T. D. 1400	Dry
McLean et al	2-Durham	T. E. L. 90	T. D. 1402	Dry
Wichita Texas	1-Furr	T. E. L. 324	T. D. 1502	Dry
Street et al	1-Finch	T. E. L. 40	T. D. 1315	Dry
Knight-Hines	1-Grubbs	T. E. L. 631	T. D. 1007	Dry

Neutral Oils

GULF COAST

200 Vis. No. 2-2½ Color Unfilt. Pale
Keen & Woolf Oil Co., Houston, Texas

300 Vis. No. 2-2½ Color Unfilt. Pale
Keen & Woolf Oil Co., Houston, Texas

500 Vis. No. 3 Color Unfilt. Pale
Keen & Woolf Oil Co., Houston, Texas

750 Vis. No. 3-3½ Color Unfilt. Pale
Keen & Woolf Oil Co., Houston, Texas

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Keen & Woolf Oil Co., Houston, Texas

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Keen & Woolf Oil Co., Houston, Texas

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Keen & Woolf Oil Co., Houston, Texas

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Keen & Woolf Oil Co., Houston, Texas

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180 Vis. No. 3-3½ Asso. Filt.
Indian Refining Company, Lawrenceville, Ill.

180 Vis. No. 5 Asso. Filt.
Indian Refining Company, Lawrenceville, Ill.

OHIO

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Craig Oil Co., Toledo, O.

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Craig Oil Co., Toledo, O.

OKLAHOMA

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Bell Oil & Gas Co., Tulsa, Okla.

PENNSYLVANIA

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Butler County Oil Refg. Co., Bruin, Pa.
Emery Mfg. Co., Bradford, Pa.
Pennsylvania Oil Products Refining Co., Warren, Pa.
Seneca Oil Works, Warren, Pa.

150 Vis. No. 4½ Filt. (Red)
Crystal Oil Works, Oil City, Pa.

180 Vis. No. 3 Asso. Filt.
Emery Mfg. Co., Bradford, Pa.
Seneca Oil Works, Warren, Pa.

200 Vis. No. 3 Asso. Filt.
Butler County Oil Refg. Co., Bruin, Pa.
Emery Mfg. Co., Bradford, Pa.
Empire Oil & Grease Co., Inc., Oil City, Pa.
Pennsylvania Oil Products Ref. Co., Warren, Pa.
Seneca Oil Works, Warren, Pa.

Cylinder Oils

PENNSYLVANIA

600 Steam Refined
Bradford Oil Refg. Co., Bradford, Pa.
Butler County Oil Refg. Co., Bruin, Pa.
Crystal Oil Works, Oil City, Pa.
Emery Mfg. Co., Bradford, Pa.
Lucinda Refining Co., Lucinda, Pa.

635 Steam Refined
Bradford Oil Refg. Co., Bradford, Pa.
Emery Mfg. Co., Bradford, Pa.

650 Steam Refined
Bradford Oil Refg. Co., Bradford, Pa.
Butler County Oil Refg. Co., Bruin, Pa.
Emery Mfg. Co., Bradford, Pa.
Independent Refining Co., Oil City, Pa.
McKean County Refining Co., Bradford, Pa.
Seneca Oil Works, Warren, Pa.

600 Flash
Bradford Oil Refg. Co., Bradford, Pa.
Butler County Oil Refg. Co., Bruin, Pa.
Emery Mfg. Co., Bradford, Pa.
Independent Refining Co., Oil City, Pa.
Kendall Refining Co., Bradford, Pa.
McKean County Refining Co., Bradford, Pa.
Waverly Oil Works, Pittsburgh, Pa.

600 Warren E
Butler County Oil Refg. Co., Bruin, Pa.
Pennsylvania Oil Products Ref. Co., Warren, Pa.

600 Oil City E
Butler County Oil Refg. Co., Bruin, Pa.
Carnegie Refg. Co., Carnegie, Pa.
Independent Refining Co., Oil City, Pa.
Pennsylvania Oil Products Ref. Co., Warren, Pa.

600 Filtered D.
Butler County Oil Refg. Co., Bruin, Pa.
Pennsylvania Oil Products Ref. Co., Warren, Pa.

Cold Test Stock (bright filtered)
Carnegie Refg. Co., Carnegie, Pa.
Kendall Refining Co., Bradford, Pa.
Mutual Refg. Co., Warren, Pa.
Pennsylvania Oil Products Ref. Co., Warren, Pa.
Warr-Penn Refining Co., Warren, Pa.

Cold Test Stock (dark filtered)
Carnegie Refg. Co., Carnegie, Pa.
Pennsylvania Oil Products Ref. Co., Warren, Pa.
Warr-Penn Refining Co., Warren, Pa.

Black Oil
Emery Mfg. Co., Bradford, Pa.

Wax Oil
Lucinda Refining Co., Lucinda, Pa.

Motor Oils

ILLINOIS

Indian Refining Company, Lawrenceville, Ill.

OHIO

Craig Oil Co., Toledo, O.

PENNSYLVANIA—100% PURE

Butler County Oil Refg. Co., Bruin, Pa.
Carnegie Refg. Co., Carnegie, Pa.
Continental Refining Co., Oil City, Pa.
Emery Mfg. Co., Bradford, Pa.
Empire Oil & Grease Co., Inc., Oil City, Pa.
Seneca Oil Works, Warren, Pa.
Waverly Oil Works Co., Pittsburgh, Pa.

Greases and Soap

Auto Soap
Damascus Mfg. Corp., Cleveland, O.
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.
Stevens Grease & Oil Co., Cleveland, O.

Axle Grease
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.

Chatterless Oil Base
Damascus Mfg. Corp., Cleveland, O.
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.

Cup Grease
Columbia Oil Co., 3419 Papin St., St. Louis, Mo.
Litwood Oil & Supply Co., Ft. Worth, Texas
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.
Yuba Oil Refining Co., Nacogdoches, Texas

Cutting Compounds
Damascus Mfg. Co., Cleveland, O.
Stevens Grease & Oil Co., Cleveland, O.

Gear Grease
Litwood Oil & Supply Co., Ft. Worth, Texas
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.
Yuba Oil Refining Co., Nacogdoches, Texas

Jack-Post Grease
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.

Mill Grease
Stevens Grease & Oil Co., Cleveland, O.

Mine Car Lubricants
Stevens Grease & Oil Co., Cleveland, O.

Pressure Gun Grease
Columbia Oil Co., 3419 Papin St., St. Louis, Mo.
Fiske Bros. Ref. Co., 24 State St., New York, N. Y.
Branch 215 Pontiac St., Toledo, Ohio.
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.
Stevens Grease & Oil Co., Cleveland, O.

Soluble Oils & Base
Damascus Mfg. Corp., Cleveland, O.
Stevens Grease & Oil Co., Cleveland. O.

Sponge Grease
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.

Transmission & Differential Grease
Columbia Oil Co., 3419 Papin St., St. Louis, Mo.
Damascus Mfg. Corp., Cleveland, O.
Fiske Bros. Ref. Co., 24 State St., New York, N. Y.
Branch 215 Pontiac St., Toledo, O.
Stevens Grease & Oil Co., Cleveland, O.

Universal Joint Grease
Stevens Grease & Oil Co., Cleveland, O.

Wax Distillate

PENNSYLVANIA

34-34½ Gravity
Bradford Oil Refg. Co., Bradford, Pa.

Wax

ILLINOIS

124-126 White Crude Scale
Indian Refining Company, Lawrenceville, Ill.

OKLAHOMA

124-126 White Crude Scale
Bell Oil & Gas Co., Tulsa, Okla.

PENNSYLVANIA

122-124 White Crude Scale
Butler County Oil Refg. Co., Bruin, Pa.
Emery Mfg. Co., Bradford, Pa.
Independent Refining Co., Oil City, Pa.
Kendall Refining Co., Bradford, Pa.

124-126 Crude Scale (off white)
Crystal Oil Works, Oil City, Pa.

128-130 Refined
Waverly Oil Works Co., Pittsburgh, Pa.

Fuel Oil

ARKANSAS

20-24 Fuel Oil
Imperial Oil Mktg. Co., Tulsa, Okla.

32-36 Gas Oil
Imperial Oil Mktg. Co., Tulsa, Okla.

KENTUCKY

24-26 Fuel Oil
Ashland Refining Co., Ashland, Ky.
Great Southern Refining Co., Lexington, Ky.

28-30 Fuel Oil
Ashland Refining Co., Ashland, Ky.

30-32 Fuel Oil
Ashland Refining Co., Ashland, Ky.

34-38 Gas Oil (light)
Great Southern Refining Co., Lexington, Ky.

34-38 Gas Oil (dark)
Ashland Refining Co., Ashland, Ky.
Great Southern Refining Co., Lexington, Ky.

38-40 Gas Oil (light)
Ashland Refining Co., Ashland, Ky.

NORTH LOUISIANA

14-18 Fuel Oil
Caddo Central Oil & Refining Co., Shreveport, La.

18-22 Fuel Oil
Louisiana Oil Refg. Corp., Shreveport, La.

30-32 Gas Oil
Caddo Central Oil & Refining Co., Shreveport, La.

32-36 Gas Oil
Louisiana Oil Refg. Corp., Shreveport, La.

34-36 Gas Oil
Caddo Central Oil & Refining Co., Shreveport, La.

NORTH TEXAS

24-26 Fuel Oil
Sunshine Consolidated Oil Co., Wichita Falls, Tex.

34-38 Gas Oil (dark)
Texhoma Oil & Refg. Co., Wichita Falls, Tex.

38-40 Distillate-Prime White
Noble Oil & Gas Co., Tulsa, Okla.

OKLAHOMA

22-24 Fuel Oil
L. O. Carter Co., Tulsa, Okla.

24-26 Zero Fuel
Altitude Petroleum Co., Tulsa, Okla.

26-30 Fuel Oil
Bolene Refining Co., Enid, Okla.

30-32 Fuel Oil
Bolene Refining Co., Enid, Okla.

32-36 Gas Oil
Bolene Refining Co., Enid, Okla.
Cameron Refg. Co., Ardmore, Okla.
L. O. Carter Co., Tulsa, Okla.
Imperial Oil Mktg. Co., Tulsa, Okla.
Roxana Petroleum Corp., St. Louis, Mo.

36-38 Straw Distillate
Cameron Refg. Co., Ardmore, Okla.

38-40 Straw Distillate
Bolene Refining Co., Enid, Okla.

PENNSYLVANIA

30-34 Fuel Oil
Butler County Oil Refg. Co., Bruin, Pa.
Mutual Refg. Co., Warren, Pa.

36-40 Fuel Oil
Bradford Oil Refg. Co., Bradford, Pa.
Carnegie Refg. Co., Carnegie, Pa.
Emery Mfg. Co., Bradford, Pa.
Independent Refining Co., Oil City, Pa.
Lucinda Refining Co., Lucinda, Pa.
McKean County Refining Co., Bradford, Pa.

SOUTH TEXAS

22-24 Fuel Oil
Pioneer Oil & Refg. Co., San Antonio, Texas

Road Oil

OKLAHOMA

Altitude Petroleum Co., Tulsa, Okla.

Petroleum Coke

Imperial Oil Mktg. Co., Tulsa, Okla.
Johnson Oil Ref. Co., 208 LaSalle, Chicago, Ill.
Kendall Oil Refining Co., Bradford, Pa.
Shreveport Prod. & Refg. Co., Shreveport, La.

LETTERS TO THE EDITOR

Editor, National Petroleum News:

I had the pleasure of attending the annual session of American Association of Petroleum Geologists, at Wichita, during last week, climaxed by the speech of Hon. W. C. Franklin, president of the Mid-Continent Oil & Gas Association. All of the papers were very interesting and instructive, as to formations, and the report of the committee on research was especially gratifying.

Through it all there continually occurred to me the question, probably asked by thousands of the fellows who are dabbling in the game in one department or another, to-wit: "What is the matter with the oil industry"?

Personally I think that Frank Phillips hit the nail on the head, in his interview stating that the oil men should pay more attention to the actual oil business than to the fluctuations of the stock market. Another essential impediment, little understood, because of lack of opportunity for analysis on account of pressing details of each department on the part of those engaged in the industry, and non-understanding by the public because of the absence of any general systematic method of education, and that need is better understanding of the many angles of the industry and the absolute necessity of closer co-operation, and all working together for lower costs to the producer. That, in the end, is the crying need.

The petroleum industry starts with the owners of land, and the assembling agency of acreage, checked by the geological surveys, confirmed by the land department, examined by the legal department, and requisitioned by the financial department after which the purchasing department makes it possible for the production department to start actual operations which, if successful brings into play the pipe line, refining and marketing departments, in the distribution of the products to the ultimate consumer, which is again, the owners of land.

Thus, is the circle completed, but, like a chain, the circle is only as strong as its weakest link, or department, and the hearty co-operation of all other departments with the weaker link is the remedy correcting general tendency to depression.

In my opinion, there are two most important departments, right at the beginning, un-organized, not co-operative, to which little thought and certainly no public expression is offered.

To the owners of land, I would suggest that, before you lease your land for oil and gas, you visit producing fields, and there observe the value of production to the owner, as against speculative non-development, non-productive, variations of commerical leases in the hands of anybody who is not financially able or who has not the inclination to spend the large preliminary sums before production.

After you are convinced that you will hold for production, consult your neighbor, in the endeavor to get the co-operation of sufficient numbers so that the assembled acreage will be attractive to the operators.

To the promoter (and I am speaking from 25 years, experience in the mining and petroleum industry) I suggest that you choose the area, which, in your own opinion, has production possibilities, and then very frankly lay your cards on the table with the owners, and obtain their oil and gas leases, in escrow with their banker, until you carry out the terms of your contract, and then devote all of your time, experience and energy to the carrying out of that contract to the required depth unless production is previously encountered.

To the geological department I would ask this in the name of the promoting agencies, when you are instructed to check an area, take sufficient time to cover the structural movement affecting that quadrangle, and stay on the job until you feel that your conclusions are definite. Everybody knows that any individual's conclusions are based on his own experiences plus the records of other experiences to which he may have had access, and everybody realizes the short-comings of the individual, but, please be unselfish enough to make your report definite.

To the land departments I wish only to say that your own methods of checker-boarding protection are responsible for the high cost of leases.

As far as I know, the other departments, as a rule, are properly functioning for lower costs in production, refining and distribution, excepting that Frank Phillips advice to pay more attention to your own work than to the stock market, will be of assistance to the industry as a whole.

FRED H. MERRITT
P. O. Box 233.
Harper, Kans.

WHOA!

THE EDITORS' VIEWPOINT

Progressive Association Work

Refining plants of the western Pennsylvania district, particularly in the Oil City and Warren districts, have taken a progressive step through the National Petroleum Association that could well be followed by the small refineries the country over. We say smaller, because the larger interests, with their fire prevention and inspection departments, naturally enough, have already moved along the line of safeguarding their plants from fire through cooperation of their employes.

Small plants, however, cannot establish a new department and add to the plant overhead through additions to the personnel. These Pennsylvania plants have each appointed from their own refinery staff a fire marshal. That job is made of some importance and consequence through the marshal reporting direct to the association. Some of these fire marshals thought enough of their jobs that they wanted to have a place for discussion of their work at the recent meeting of the association at Cambridge Springs.

The association, through its department of welfare and insurance, first undertook by mail the education of these plant marshals on points where lack of fire prevention maintenance and carelessness breed danger for the plants. The marshals are sent regularly inspection blanks they fill out and return to the association. Filling out the blanks properly calls for close attention to the danger points that frequently go unnoticed about the plant, such as open man holes on tanks, vents not properly screened, condition of shutoff valves at stills and so on. When the marshal finishes his report he has made a close inspection of the plant properties for fire prevention purposes.

While plant heads are enthusiastic about the work they keep their hands off as much as possible and let the fire marshal take the responsibility and likewise the credit for the work. The association plans to supplement the work with posters which can be used to educate the plant workers generally to the need for care on everyone's part to prevent fires. Another step will logically be a similar campaign to prevent accidents through carelessness. The scheme fits the needs of the small plant admirably and the expense per plant is so small as to be no factor against the move.—V. B. G.

Honourable Mention

JUST how really considerate a big corporation can be is shown by the little incident in Wyoming, where a court dispossessed the citizens of an oil field town, Lavoye, in the Salt Creek field. A federal court held that the people of that town were squatters and set the date when they must all be off the property, which is operated by the Ohio Oil Co.

Having won in its contention that it is entitled to unobstructed possession of its lease, the Ohio company then turned around and offered to help the people move off. There was no obligation to do this—not even a moral one—but the company recognized that some of the people entered upon the premises in the belief that the man who leased them the lots had a right to do it.

Another townsite has been staked, out of the path of oil operations and the Lavoye business houses are rapidly being moved off the Ohio lease. Peaceable settlement of what appeared to be a bad situation seems to be in sight. The Ohio, with this display of courtesy, merits the approval of the industry.—L. E. S.

Handling Field Equipment

COINCIDENT with a campaign of The Texas Co. to dispose of surplus equipment has come a general cleaning up of material previously considered necessary to the lease itself. Its men have entered into the campaign with enthusiasm, says the official Texaco Star, especially as they see charged to their leases every month "every bit of the material taken from the warehouse whether used in a well or not."

Material brought in from reserve lease stocks is credited to the lease and the company finds that its men are keen to get these credits. The result is that the company now carries on its leases only that material absolutely necessary to maintain daily production. Lease stocks, of course, are reduced to a minimum. Besides well material all sorts of equipment are included, such as surplus knock-down buildings, field lines, tanks, tools, automobiles and in fact anything of value.

Warehouse stocks of these materials are utilized to the best advantage in the general district, or they may be transferred elsewhere as the occasion demands. The policy growing with a number of the larger companies is not to warehouse stocks of new material beyond the needs of the immediate future.

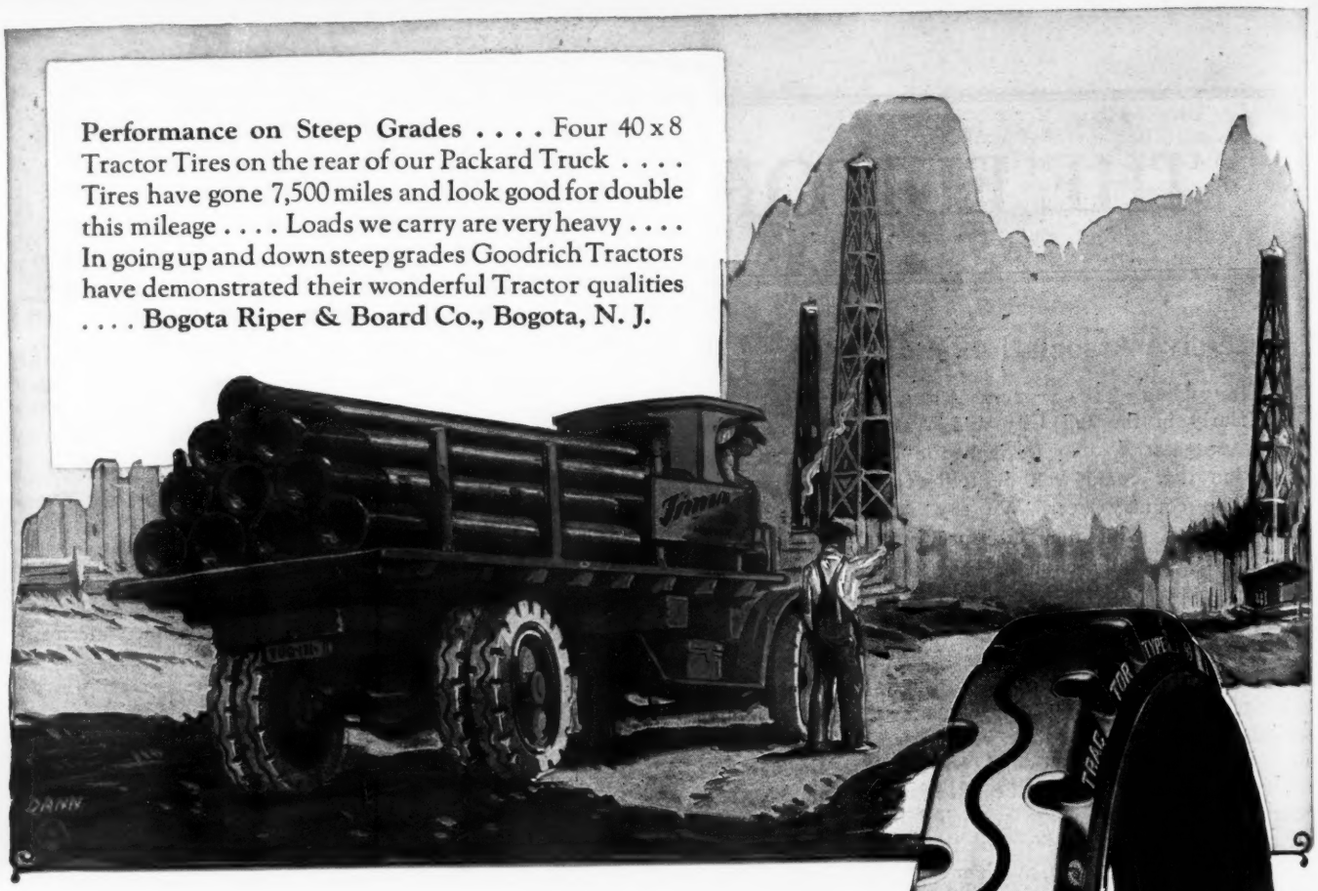
A result of careful warehousing and the transfer of equipment is to cut down the carrying costs of materials not in use, which previously constituted a heavy investment on the part of many operating companies. Upon the frequency of replacement required and the location where equipment is used must depend the policy of warehousing materials in quantity.

After the strenuous Ranger boom, when conditions were abnormal, the various operating companies began reducing the large stocks accumulated through necessity. The Texas Co. was a leader in reducing stocks of materials left on hand when the Central North Texas development went into the downturn. Successes shown for its policy at that time pointed the way to further economies, which are being carried forward from stage to stage.

The result is that the cost of operations continues to show reduction through cutting down surplus stocks and unnecessary investment, with resulting decreased taxes and depreciation of materials on hand.—P. W.

In reading the announcement of the purposes of the National Oil Scouts Association of America it is noted that a vital subject has not been touched upon. Drillers have hoped that the scouts would get in line with the standardization movement and adopt a uniform grade of cigars.

No change has occurred in the naval reserves lawsuits. The defense is still two depositions ahead.



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When the World Needs Colombia's Oil, She Has Big Store to Contribute

By M. A. "Mike" Spellacy

AFTER an exploratory trip of some weeks' duration, in which there was no necessity for setting-up exercises to keep in condition, M. A. Spellacy—"Mike," to the hundreds of people who know him—returned to Bogota and remembered his promise to contribute to National Petroleum News some of his views on the oil situation in Colombia.

Mr. Spellacy is one of the world's greatest travelers. He has been going to Colombia for years, looking over the prospects in various areas. He is the first white man to have entered many of the regions and he has contributed much to the information on geographic and economic conditions of Colombia.

He could contribute many a hair-raising tale if he would. He is rather a modest individual, however, and when he writes he confines himself to the subject of mineral resources. On behalf of himself and his associates, he has traveled thousands of miles in his quest for oil. Just give him a hint of an oil seepage in an unknown part of the tropics and he is off to see about it. He is far better known among some of the primitive tribes of Colombia than is any other white man and he has been elected chief of one or two of them. The Spellacy name is a familiar one in the oil development of the United States; it will be equally well known in the development of Colombia.—Editor.

THERE has been very little done, aside from the operations at Barranca Bermeja by the Tropical Oil Co., in proving oil territory in Colombia. Also, except for the operations of that company, the present campaign is not extensive.

The Jenks-Colombian Oilfields, Ltd. interests are drilling near Puerto Colombia and have contracted with Abercrombie & Fitch for five test wells. The Standard Oil Co. of California is drilling between Barranquilla and Cartagena. There have been a half dozen wells drilled by these companies and the Gulf Oil Corp., along the coast, covering a distance of a hundred miles in an effort to get production near water transportation. Geology says it should be there, but if so it has not yet been found in commercial quantities.

Benedum & Trees (Transcontinental) and the California Standard have a small well at Guataqui, about 150 miles up the Magdalena River from the Tropical properties. Reports say this well is good for about 50 barrels of high gravity oil. They are drilling deeper and have started or located another well about 10 miles down the river.

The Tropical is the one bright spot in Colombia thus far. This concession covers about 1,500,000 acres and enough development work has been done to rank the property as one of the great ones of the world. They are running about 20 strings of tools and the recent strike of a well with initial production about 5,000 barrels, 10 miles from production, proves up an acreage approximately equal to the total oil territory of California or Mexico. The oil ranges in gravity from 26 to 37° and there are several producing sands.

In my opinion, when the market in the United States demands and the price reaches $2 or better, the Tropical can supply oil as rapidly as pipe line facilities permit, up to 100,000 barrels a day for an almost indefinite period. In fact, present potential production, is not so very far from that figure.

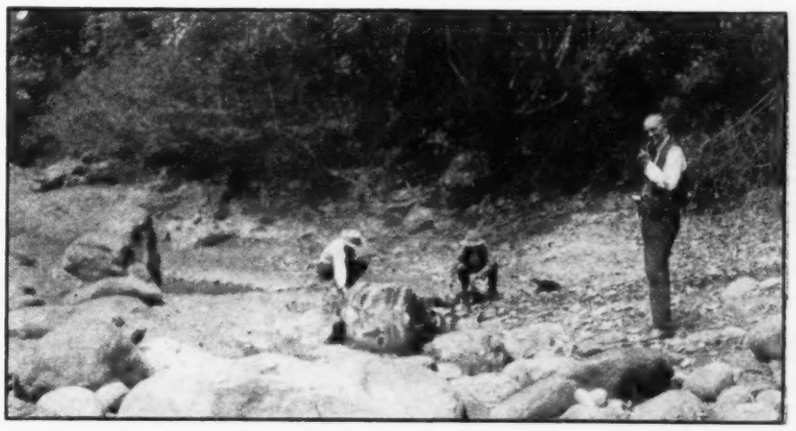
The Andian pipe line from Cartagena to Barranca Bermeja is started, or rather preliminary work is being done, material arriving, etc. When this line will be completed depends, of course, on how much the work is rushed, pump stations built, etc. Probably within a year, if desired. It will be 250 miles long, over a road offering no great difficulties.

There is a roar in the Colombian Congress at present, because the Tropical is not shipping more oil. The refinery has 2,000 barrels daily capacity, which should be sufficient for the home market. The concession carries the right to construct a pipe line, but the Andian applied for the privilege over six years ago and no one outside of Colombia could imagine it would take so long to secure it. But Colombian methods in this respect differ from all of the rest of the world. Half a dozen departments to scrutinize it, each offering changes and holding up the contract for months. Then Congress—whew!

Not Unlike United States

One of the curses of Latin-America is the natural flow of oratory in their beautiful language. Then the opposition press—politics. As soon as it appeared probable that the concession would be granted, the press, and through that power, the public, would be influenced by the cry of corruption and that they were turning the country over to the "Yanqui." As in the States, "Vox Populi" has a powerful influence on politicians and this cry held up the work for years with the consequent loss, or delay, for Colombia of many millions of revenue and disbursement, through banks, merchants, workment and others. It is a bold politician who opposes the popular will, but there are many in Colombia who realize, now more than ever, the necessity of developing the natural resources and there is a disposition to go ahead, regardless of all foolish clamor.

In the opinion of those whose patriotism is the first consideration. Colombia, which has started construction of transportation—her greatest need, aggregating probably $100,000,000—will "blow up" when the last of the $25,000,000 indemnity from the United States has been paid unless some means are taken



Mike Spellacy is here shown in the attitude of enjoying a pipeful of tobacco. This is at an oil seepage along the Cusiana River, Colombia. About 10 barrels daily of 40 gravity oil issues from the seepage

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at once to furnish a much needed material increase in revenue.

Gradually the old, impossible oil laws have been changed, or are in process of improvement until, today on National lands, they are, while not so favorable as those of Venezuela, much improved. Grants, or concessions, are offered in 12,500-acre blocks at a reasonable royalty 20-year lease with 20 years extension at a raise of $5,000 per year for every 12,500 acres for lands retained. A rental of four cents per acre is asked at the final first grant.

The Tropical has not the only rich spot, I feel assured, in Colombia. When production in the United States falls off enough to demand it, Venezuela and Colombia can safely be counted on to furnish a half million barrels daily at least, depending only on transportation and intensive drilling. Wells so far run from 1,000 to 2,500 feet (the Tropical has at least one well, estimated from 300 to 500 barrels, at 200 feet.)

Colombia has more prospective oil territory than has Venezuela. I have just returned from looking over about 150 miles of territory east of the Andes and bordering on the Llanos. It all has possibilities. I brought back samples of oil of 26, 40, and 45 gravities, from seepages. Two of the seepages flow probably 10 barrels per day and are rich in lubricants and gasoline. It will take time and capital to get oil from this district to market, but, of course, that time will come.

Southwest from the point where I started, the Union Oil Co. has 500,000 acres of seepage lands. North from the finish of my trip, two years ago I looked the district over to the Arauca River, the Venezuelan border. Nearly all the territory is underlaid with sands, the formation looks good and there is an occasional seepage, but some distance back in the mountains.

In my five years here I have also looked over the Uraba District to a certain extent. This is the government reserve and, as regards the section I visited and which was much more investigated by other oil friends, it will make a wonderful country—for raising coffee and ducks.

The Sinu River country has possibilities. The Magdalena valley, of course. Putu-Mayo, flowing into the Amazon, traverses a region of many seepages with good chances. There are a great many exposures of oil sands near the Pacific, but they are nearly vertical, although late reports, authentic, I believe, tell of good formations and prospects near the Ecuadorian border near the Pacific.

The present oil situation in the United States, increased consumption and decreased production, will, if continued, naturally turn attention to South America and Venezuela and Colombia should secure a large part of the development. Venezuela will be more prominent, for a time at least, as President Gomez, realizing the opportunity, offers good laws and welcomes the foreign investor.

Centralized Control of Refining Operations Reduces Operating Costs

By Paul Truesdell

N. P. N. STAFF WRITER

NEWARK, O., May 2

AMONG the problems that the refiner must solve if he is to operate his plant at a satisfactory profit, one of the most important is that of handling labor.

After the refiner has paid for his crude oil and charged against operations the cost of his fuel, probably his next big item of expense is his payroll.

About the cost of his crude oil he has very little to say, unless he owns his own production. Somebody else sets the posted price of crude and his competitors, offering premiums according to the state of the market and their desire to get the oil, determine the excess over the posted price he must pay to get the crude.

He has mighty little to say, either, about the price at which he shall sell his refined products. Conditions of the market generally, the law of supply and demand, fix that for him. Thus, with the cost of his raw material set by somebody else and the price his refined products will bring also set by somebody else, it would appear that about the only chance the refiner has to increase his margin of profit, or sometimes to make a profit at all, is to cut down the expense of the operations necessary to convert the crude into marketable products.

One of the items in this expense, and a big one, of course, is the labor cost. To get efficient work out of the men actually carrying on the refining operations helps. To get more efficient work out of fewer men, helps still more.

Make It Easy For 'Em

Imperfect human nature assures that workmen in general will not strain either their muscles or their brains in order to make a profit for the boss. Driving them works sometimes, possibly, but if the state of the labor market is such that jobs are hard to find and the men stay on the job in spite of the driving, you generally have an unwilling and surly bunch who will quit the moment they think they have a chance to find a job outside. And the work of such a bunch will not be of very high quality. And it is expensive to be always hiring and firing.

It would seem logical to think that if you want to get the greatest possible amount of work done most efficiently, the best way is to make it easy for the workmen to do it and make them comfortable while they are doing it. A good many refiners undoubtedly have tried out this method. This story is about a man who has tried it and found that it works.

His name is W. G. Leamon and he is president of the Stellar Refining Co. with a plant here. It is a small plant but there seems to be no reason why the same system would not work out just as well in any refinery, regardless of its size. While Mr. Leamon designed and built the refinery, his ideas are now being carried forward by A. W. Goldsberry, who is in immediate charge of operating the plant. The Stellar is a skimming plant with a capacity of 1,000 barrels of crude a day, and a special cracking plant that runs about half as much of topped oil. There are a lot of special features about this skimming plant which will be described later, just now we are talking about labor.

Three men to a shift run the plant, and Mr. Leamon says that one of these men is really unnecessary. He is kept in the power house, however, as a precautionary measure more than anything else for the power plant just about runs itself.

Centralized Control

Centralized control is the way it is done. And control is centralized in the tail house. The tail house here is different from that in most plants. Most of them are cold, drafty places, not very well lighted, but not this one.

It is divided lengthwise by a partition of which the upper part is glass into two compartments. The compartment on one side of the partition looks about like the receiving house at any refinery, with its running lines, each with its gas trap to take off the uncondensed gas to the reclaiming plant, its lookboxes and manifolds.

It is on the other side of the partition that the control of the plant centers. This looks more like a comfortable office than a receiving house. It is steam heated and well lighted. Fig. 1 shows the heart of the control system. In the foreground is the "busboard." To this board are connected 40 thermocouples installed at various points in the plant. Not all of them are connected up at present, because the full capacity of the board is not needed at this plant. The board is similar to a telephone switchboard.

The positive wires from the thermocouples are connected to posts at the top of the board and the negative wires to posts at the bottom. Positive and negative sides of the board are separated by the wide space that can be seen running horizontally across the middle. Two electric thermometers can be seen on the table in front of the busboard. When it is desired to learn the temperature being recorded at that moment in any part of the plant, a push button connecting the electric thermometer to the busboard is pressed. This completes the connection and the temperature is read on the thermometer. Thermocouples are placed at important points in towers, stills and furnaces.

Pyrometers Control Temperatures

The Leeds & Northrup indicating and recording pyrometers are seen on the right. These keep a continuous record of the temperature at 16 key points in the plant and four points are hooked up to controlling mechanisms in the pyrometers which automatically regulate the flow of oil to the burners in order to keep the temperature uniform. One man in the receiving house thus has under his eye the entire operation of the plant.

The house is also equipped with a plant telephone with stations at various

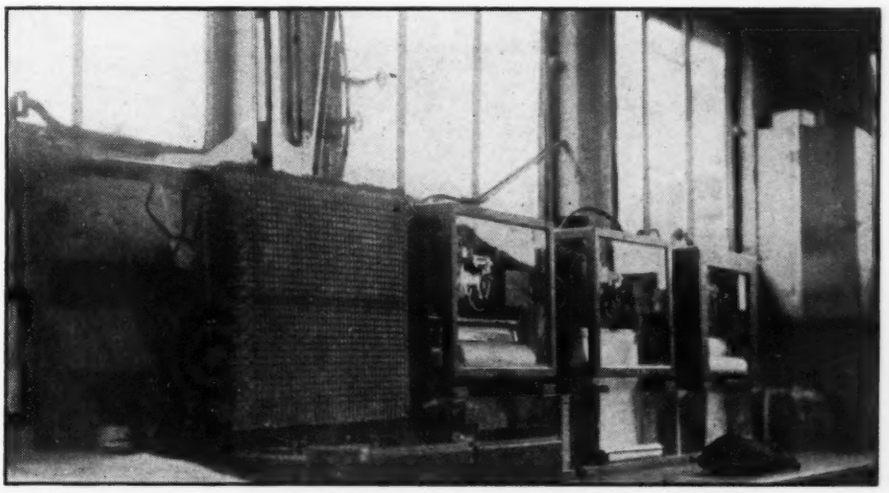


Fig. 1—Temperature recording and regulating devices, with busboard for getting immediate temperature by connecting up with electric thermometer

parts of the plant so that if the temperature falls or rises unduly he can call the fireman or whoever is responsible and find the cause of the trouble. The same man also makes the cuts and he has a comfortable place to make his gravity tests and so on.

There is an old quotation that "Hell hath no fury like a woman scorned," We don't know about that but it is a safe bet that Hell hath no mudhole like a refinery yard in hot weather. Also, Hell hath nothing more slippery and dangerous to walk on than a sloping steel tank roof in freezing weather. But refinery tanks have to be gaged, regardless of the weather.

By the time a gager has slogged around a refinery yard in the rain for awhile, laboriously pulling one foot after the other out of the mud he is likely to be in a frame of mind that is not helpful to the accuracy of his work. He doesn't feel any better when he has climbed to the top of a tank where the rain or sleet has made a thin sheet of ice. Maybe he falls and breaks a leg or his neck. This is hard on a man and expensive to the refinery.

Even if he gets off the tank safely, the chances are that he has not done his work very accurately and he may quite likely duck a few tanks so the superintendent or the manager may have a surprise coming to him when he thinks the tank is full or nearly full and suddenly finds it is empty.

Gaging Made Easy

At the Stellar plant they don't have this kind of thing. The same man who keeps a check on the operation of the stills and towers by the automatic records and controls and makes the cuts in the tail house, stands by the steam radiator and gages the tanks by turning a few levers while he looks out the window at the snow and sleet.

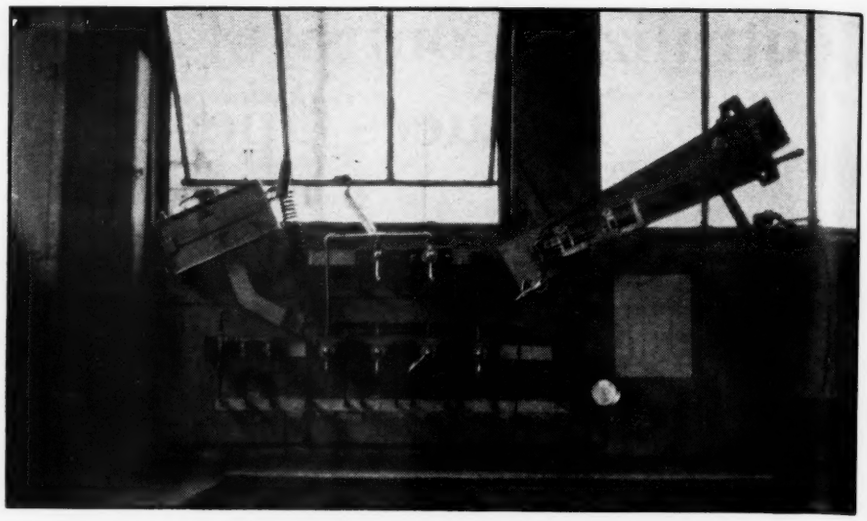


Fig. 2—Pneumercator tank gaging device as installed in the control house of the Stellar Refining Co.

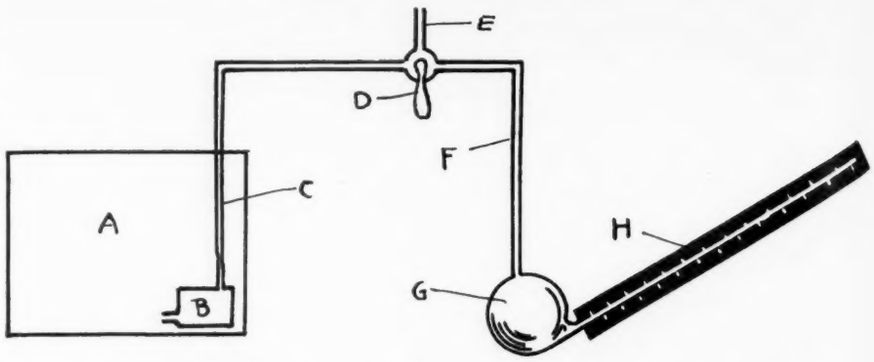


Fig. 3—Drawing showing roughly how the Pneumercator tank gaging device operates to tell the depth of oil in a tank in feet and inches

He does it with the Pneumercator tank gaging apparatus of which a close-up is shown in Fig. 2. The drawing, Fig. 3, illustrates roughly how the apparatus operates. A represents an oil tank. B is a small square box with a hole in the side which is located at the bottom of the tank. C is a small pipe connecting the box through a three-way cock to a gas line. Compressed air instead of gas is generally used. But pumping air into oil, with the vapors of which it makes an expensive and inflammable mixture, did not appeal to Mr. Leamon so he has the system connected up with the gas compression system. D is the three-way cock, E the gasoline from the compressor, F the line leading to the mercury chamber, G the mercury chamber, H a mercury tube fitted on a scale divided in feet and inches.

The box in the tank, or balance chamber, has an opening directly into the oil in the tank. To gage the tank, the three-way cock is opened, admitting gas and filling the box. The oil then tries to enter the box and the pressure it exerts on the gas is transmitted to the mercury, forcing it up the scale. The scale then registers in feet and inches, showing the depth of oil in the tank. The tank having been strapped, it is simple to figure the contents in gallons or barrels of the tank from the depth of the oil in feet.

In this particular installation, there is another balance chamber in the tank, placed exactly four feet above the lower

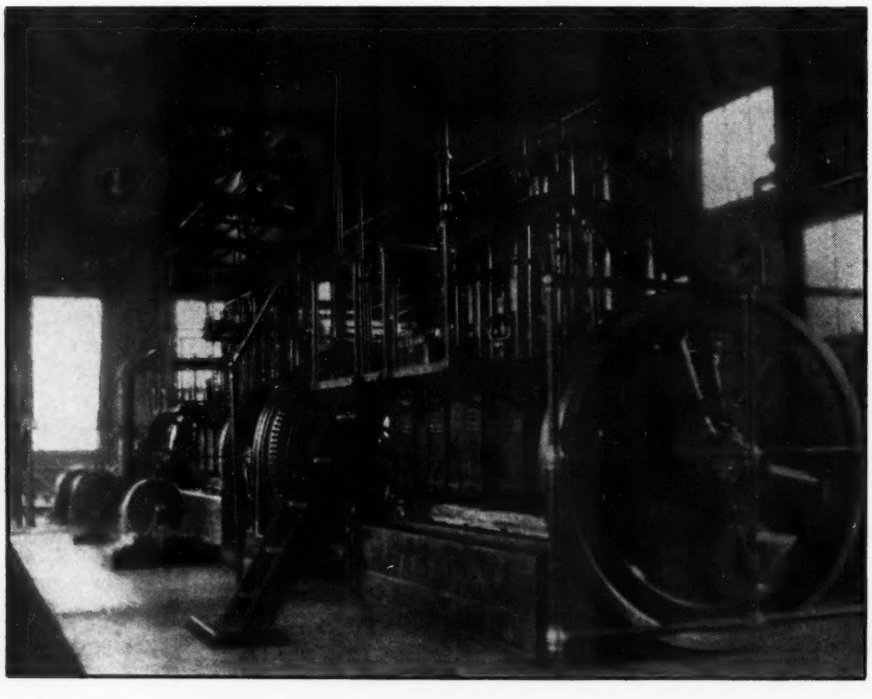
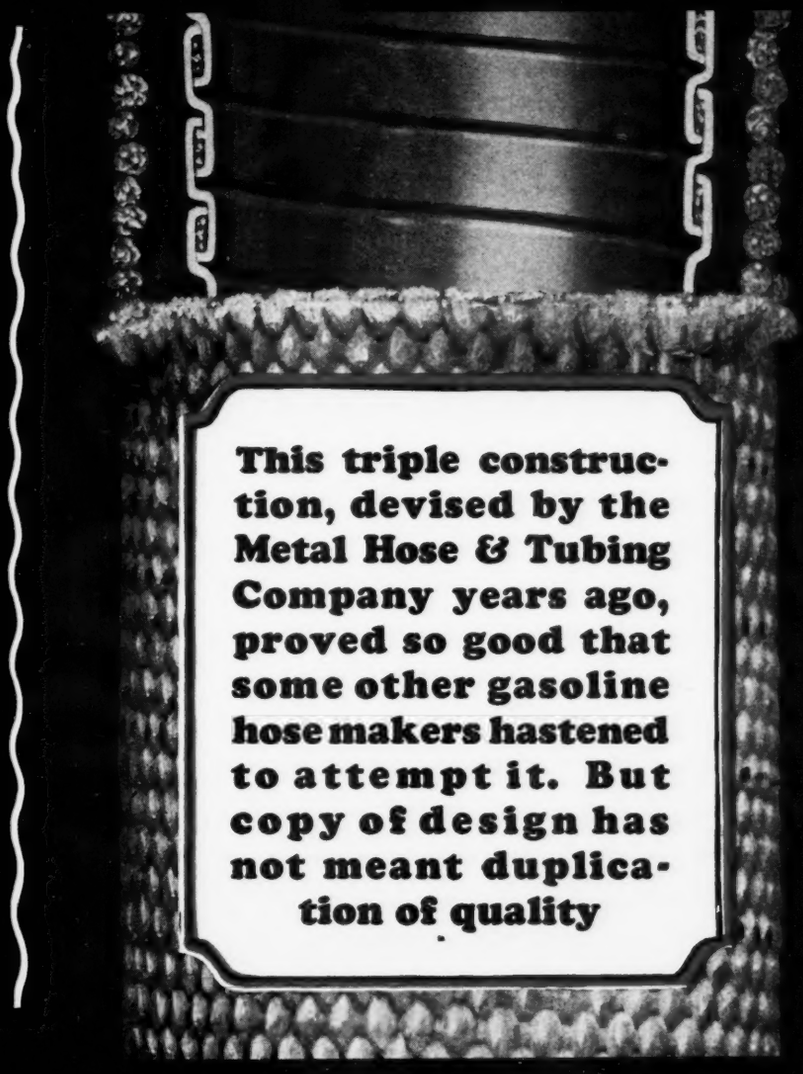


Fig. 4—The power plant of the Stellar Refining Co. The two gas engines and the generator between them are shown

TRIPLEXD



This triple construction, devised by the Metal Hose & Tubing Company years ago, proved so good that some other gasoline hose makers hastened to attempt it. But copy of design has not meant duplication of quality

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one. The upper box is calibrated to show the pressure that would be exerted by water in the tank. By taking the pressure exerted by the oil entering the upper balance chamber and the pressure exerted in entering the lower, it is possible to operate a gravity finding device on the instrument and determine the gravity as well as the volume of the oil in the tank.

Connected To Six Tanks

This particular instrument is connected to only six tanks, each of the levers against the wall in the picture indicating a tank connection, but it is possible to connect the instrument to any number of tanks and so all the tankage of a large refinery could be connected up and gaged with accuracy as to volume and gravity by one man in a central control house.

The Stellar refinery, so far as we know, has the only power plant installation of its kind in the industry. In the first place, it is a question if there is another plant in the country as small as this one that generates its own electricity. This one does.

The power plant consists of two Reeves vertical gas engines of 150 horsepower each, direct connected through a jaw clutch with a 300-ampere 220-volt 60-cycle General Electric generator which generates 100 kilowatts at a speed of 277 r.p.m. This whole installation cost about $13,000. One of the gas engines operates the generator, the other being merely for breakdown service. The generator is swung over from one engine to the other by means of the clutch. Fig. 4 is a picture of the power plant.

This generator outfit does the work that would require two 150 horsepower boilers if steam were used. The greatest demand for electricity in this plant is for operating the pumps. All of these are Viking geared rotary pumps, direct connected to motors. All motors are of the squirrel cage, induction type which avoids any chance of sparks.

For transfer and tank car loading there are four big pumps with a joint capacity of 1,200 gallons a minute, two are four-inch for the heavy oil and two are three-inch for the lighter stuff. These pumps are operated by 25 horsepower motors.

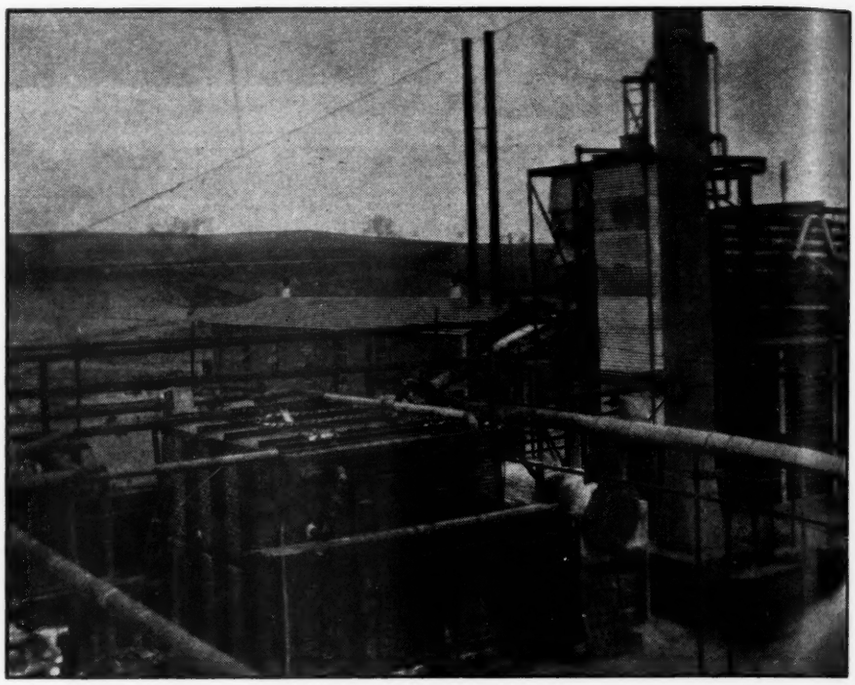


Fig. 5—The entire layout of the 1000-barrel a day skimming plant. On the left is the pipe still, in the center, the bubble tower surrounded by a square corrugated sheet iron housing, on the right the aerial condenser

For feeding oil to the stills, there are two twin Viking two-inch pumps and with a five horsepower motor each and one twin with a 10-horsepower motor. There are also two direct connected water pumps with a capacity of 200 gallons a minute each.

For feeding charging stock into the cracking still, the plant has a small Quinby screw pump, direct connected to a five-horsepower motor. This little pump, which takes up about as much room as a sausage grinder, has a capacity of 30 gallons a minute. It operates by means of two auger-like screws rotating in opposite directions, with their fins meshing, forcing the liquid by a sort of squeezing motion through the line.

The Two Toy Boilers

But the plant cannot get along without some steam. It is needed for cleaning out tank cars, for feeding the oil to the burners and for heating. To provide this steam there are two Erie Economic boilers of 29-horsepower capacity each.

They are really drilling boilers mounted in proper settings and they are so small that they look almost like toys alongside the boilers usually found in a refinery. One of these boilers, working at about 75 pounds pressure, furnishes the required steam and the other is a standby. They are oil fired and they furnish the steam for the only steam pump in the plant, a tiny 2 by 3 by 2 duplex piston pump that feeds the oil to the burners.

One reason for having 29-horsepower boilers is that the Ohio lew permits unlicensed men to handle boilers below 30-horsepower and this saves somewhat on wages. The steam plant of this refinery was installed at a cost of about $2,500.

The equipment that forms the skimming plant at this refinery is interesting. It consists of one Foster pipe still with two-inch pipe coils, an insulated expansion drum which is simply a 10 by 24 foot tank set horizontally at the ground level, a bubble tower and an aerial condenser. The entire plant, with the exception of the expansion drum which is behind the pipe still, is shown in Fig. 5.

On the left is the pipe still, in the middle the bubble tower, rising alongside the steel stack, and on the right the aerial condenser. The bubble tower does not look like one because it is covered with a square corrugated sheet metal housing to protect it from sudden atmospheric changes.

A $25,000 Skimming Plant

The Foster still cost $5,600 and the entire layout cost less than $25,000. The bubble tower and the tank used as an expansion drum were bought at bar-

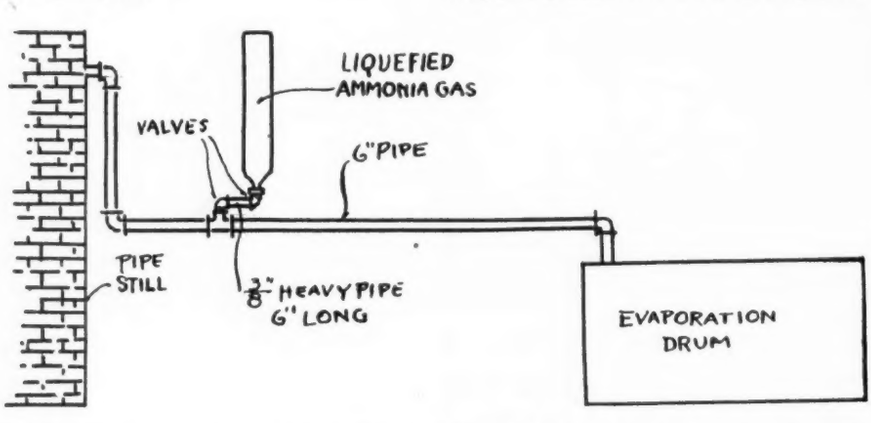
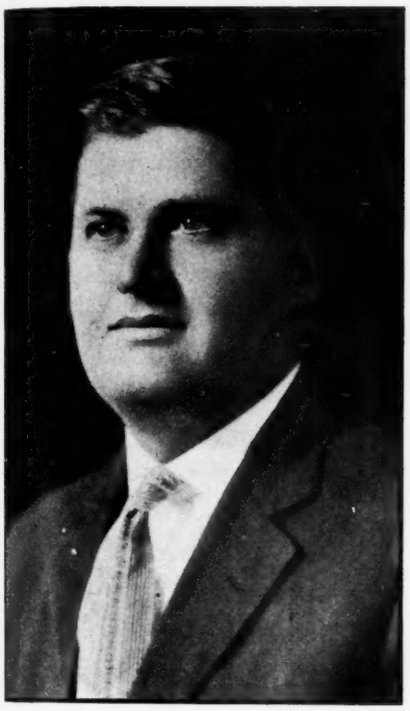


Fig. 6—Drawing of the system of feeding ammonia into the oil and vapor line from the pipe still to neutralize hydrochloric acid corrosion

gain prices when the government was breaking up housekeeping at Nitro, W. Va., after the war.

Mr. Leamon points out that in putting in a pipe still installation it is important that the expansion drum be big enough. Frequently too small ones are put in. When that happens, the velocity of the vapors is not slowed up enough to permit the entrained oil to drop out, consequently it is carried over into the bubble tower, upsetting its balance so that a poor separation is made. And there is no refluxing possible from



J. W. McCulloch
Vice-President Independent Oil & Gas Co.

the tower into a pipe still as there is into a shell still. The present expansion drum at the Stellar plant is bigger than it needs to be but it is better to have it too big than too small. As the plant is operating now, on Corning crude, about 30 per cent of U. S. Motor gasoline is taken off the bubble tower.

Aerial Condenser Used

The use of an aerial condenser, they have found at the Stellar plant is a considerable saving over the use of the conventional coils submerged in boxes. In the first place, the construction cost is much less and by spraying water over the coils in hot weather to help the air cooling it is possible to condense even gasoline.

On the gasoline condenser which is now in use, louvers are provided below the coils to prevent the water from being carried away by the wind.

At the Stellar plant they have been up against the hydrochloric acid corrosion problem to an aggravating degree. The crude contains magnesium chloride which, on passing through the pipe still decomposes and forms hydrochloric acid which is very destructive to steel. This form of corrosion was described by Dr. F. W. L. Tydeman, superintendent of the Roxana Petroleum Corp.'s refinery at Wood River, before the convention of the Western Petroleum Refiners Association at Kansas City last month.

Dr. Tydeman's paper was published on page 40 of the March 5 issue of National Petroleum News. Dr. Tydeman pointed out that his company had been successful in fighting the corrosion of equipment by hydrochloric acid by the use of ammonia, which they are now using successfully in aqua solution.

At the Stellar plant, the percentage of hydrochloric acid formed in the refining of the crude is so high that the condensate lines running into the tailhouse would be eaten out by the acid in a week. Mr. Leamon also found the remedy in ammonia and he found a very simple and inexpensive way to use it.

He buys anhydrous ammonia or liquified ammonia gas in pressure cylinders. One of these cylinders is hooked up to the line that carries the hot oil from the tube still into the evaporator so that the ammonia will flow out by gravity as shown in the drawing Fig. 6. The valve in the top of the cylinder is connected into a short length of heavy three-eighths inch pipe which connects, through a valve, into a short nipple which in turn connects through another valve with a short length of pipe that leads into the oil line.

The valve leading into the short nipple is opened, the valve on the ammonia cylinder opened and the valve at the end of the nipple leading into the oil line closed. Thus the nipple is filled with the liquified gas after which the valve next to the cylinder is closed. Then, by cracking the valve on the pipe leading into the oil line, the ammonia, becoming a gas as the pressure is released, is fed into the oil and vapor stream.

The length of the nipple has been adjusted so that one filling of the nipple with ammonia will last about an hour, so it is a part of the stillman's hourly round to refill the nipple. A 50-pound drum of ammonia, at the market today, costs $19 and such a drum lasts, on the basis of 1,000 barrels of crude run a day, about two months at the Stellar so it isn't very expensive.

'McCulloch Retires From Independent O & G

OKMULGEE, OKLA., April 20.—One of the founders of the Independent Oil & Gas Co., J. W. McCulloch, vice-president of the company has resigned to enjoy some of the fruits of his labors. He will rest for several months, then probably will again engage in producing oil as an individual operator.

Mr. McCulloch retains large stock interest in the Independent. He has been active since the organization in 1919 up to the present and his reward has been a substantial one.

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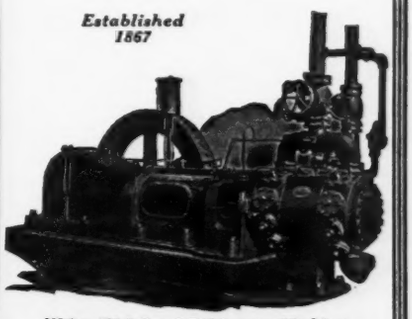

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Shallow Sand Pools in Archer County Indicate Further Development

Article 9 in a Series on Texas

By Paul Wagner

N. P. N. STAFF WRITER

THERE is no more impressive index to the future possibilities of shallow sand development in the southern part of the Wichita Falls district than a comparison of production for the years 1923 and 1924.

The yearly production of Archer county, which embraces the bulk of this shallow sand development area, was more than doubled in 1924 to 10,691,592 barrels from 1395 wells. In 1923, total production amounted to 5,150,320 barrels from 627 wells.

That the doubling process can be maintained from year to year is doubted, because of the myriad small pools necessary to be opened to make such a result possible. Enough of them may be expected in 1925, however, to pyramid their yields upon the older settled production and to bring about an increased volume of oil this year.

Pools responsible for this type of development in Archer county show average sand thicknesses ranging from 2 to 13 feet at depths varying from 1030 to 1825 feet, allowing for normal regional dips and differences in surface elevations. The sands productive in this general territory are found just beneath the Gunsight lime in the lower part of the Cisco formation, of Pennsylvanian age.

With the exception of a single well in eastern Throckmorton county, which is producing from the Strawn series beds at 3190-3197 feet, all the pools in the area under discussion give up their oil at the Cisco level. Throckmorton county corners into Archer at the southwest and may prove productive at the Cisco sand level in prospective pools in the northeastern part of the county.

Already the southwesterly trend of Cisco sand development has passed beyond Archer county, into northern Young; and it is not improbable that the future will find an edging out of productive territory to the westward, in both Throckmorton and Baylor counties.

* * * * * * *

THE Throckmorton county well producing from the Strawn series horizon at approximately 3200 feet is mentioned here only for the purpose of distinguishing it from any future developments to come about at shallower levels in this territory. This well is the Humble Oil & Refining Co.'s No. 1 J. L. Stubblefield, which made 85 barrels, initial production, when completed last year.

May be Deep Pay Pointer

Although possibly to be considered a pointer in the search for deeper oil in northern Young, Archer and Baylor counties, the Stubblefield well is unrelated to the development which has resulted in the bringing-in of the chain of pools productive from the Cisco sand, or sands.

The two pools in northern Young county that produce from the Cisco formation are located just to the south of similar Archer county development. They are the Litchfield pool, three miles east of the town of Olney, and the Gambrell pool.

Litchfield et al, drilling on the Campbell farm, brought in the "discovery" well of the Litchfield pool at 1030 feet for 75 barrels, initial production. Since that time a total of five producing wells have been completed, these averaging 84 barrels daily, in January, 1925.

The "discovery" well of the Gambrell pool, drilled by Murchison & Fain, had initial yield of 540 barrels at 1204-1216 feet; and eight wells in this field were averaging 181 barrels per well per day, in January.

History of Archer Development

A tabloid history of the nine pools found in Archer county in 1924 accompanies this survey and provides the detailed data necessary for the study of the main part of the area under discussion.

Another table giving similar information about Archer county pools developed prior to 1924 is less complete. Since the end of 1923 no detailed records are available on the number of producing wells in individual pools. Production records consolidate small groups of them in such manner that statistics do not make close distinctions between one pool or group of pools against another pool or group of pools.

The number of producing wells in Archer county, December 31, 1924, was 1395, of which 711 were definitely accounted for last year. As there were 627 producing wells in Archer county at the end of 1923, there appears a discrepancy of 57 wells in a consolidation of figures for 1923 and 1924.

It is apparent, therefore, that the table covering operations prior to 1924, and which shows a producing record as of December 31, 1923, should take account of 57 additional wells to bring it down to the beginning of 1925 in a statistical sense.

The per well average column of this table is to be used mainly as an index, but the decline in the production figures it contains would be found very nominal except as regards the fields marked "Semi-settled." Per well per day production in the latterly mentioned fields has been cut approximately in half, on an average.

Pools found and developed in 1924 were producing 32,660 barrels of the 38,251, daily average, last December of Archer county wells. That meant that the other wells in the county, including 627 productive at the end of 1923 and 57 that were drilled in 1924, had given up in December a combined production daily of 5591 barrels.

Analyzed more closely this represented a per well per day average from 684 wells of about eight barrels, as compared with 30.3 barrels daily average at the end of 1923 for the same well group less the 57 completions in 1924.

Allowing for 50 per cent decline, however, in the then semi-settled sub-division embraced by the Freeman-Hampton, Peterson, Swastika and Sunshine State pools, it will be seen readily that the losses elsewhere in the district were nominal even though not definitely measured.

It is always unsatisfactory to attempt analysis of partially complete data for the purpose of showing results accomplished. In this case, however, workable figures are at hand for specified dates; and it is only the detailed information regarding 57 completions in old fields, plus a lack of division of per wells averages in these same old fields, which are missing.

After taking account of the conditions brought out in the foregoing discussion of the application of the data at hand, the accompanying table covering developments up to the end of 1923 may be accepted as a partial index to the old development. The 1924 figures contain no such gaps and may be relied upon without the use of statistical gymnastics.

Scope of Wichita Falls District

The Wichita Falls district ordinarily includes the entire sand country development north of the General Ranger black lime territory. Besides northern Young, Baylor and Archer counties, the

district takes in Wilbarger, Wichita, Clay and Montague counties.

It has been the intention in this article to give little attention to the historic Wichita county development which includes Burkburnett, Electra, Iowa Park and numerous smaller fields because of the tendency to carry new work into adjoining counties.

Wilbarger county development has been extended westward from the point where the old Electra field overlaps into the eastern part of it. Now there are small pools in the central northern part of the county near the towns of Vernon and Oklaunion. Of these, only the South Vernon pool has reached the importance of 5000 barrels daily production. Others may be expected to grow in importance in the future.

A total of 15 dry holes were drilled in 1924 in Clay county, where the Petrolia field had 339 barrels daily production, December 31, 1924, from 281 producing wells. Petrolia is an old

Wichita Falls District Production in 1924

Division	Number Wells	December Daily Aver.	Yearly Prod. for 1924
Electra	2489	17,817	827,900
Burkburnett	3332	15,189	7,037,082
Iowa Park	589	3,587	1,376,892
Archer Co.	1395	38,251	10,691,592
Clay County	281	339	126,636
Wilbarger Co.*	20	5,340	260,121

*South Vernon.

Tabloid History of Archer County Pools Opened in 1924

Pool—Opened By	Discovery Well	Location	Date	Oil Sand	Init. Prod.	Prod. Wells 12-31-24	Dry Holes	Avg. Init. Prod.	Well Avg. Prod. 12-31-24	Acres Proved Ground	Pool Defined or Not
Shappell Pool											
T. O. Shappell	Jackson 1	League 4, Denton Co. School Land	1- 1-24	1812–1816	350	27	7	110	44.4	640	Def. N.W. and S.
Comac Pool											
Carter Brothers	Farmer 1	L. C. Winters Sur.	4-26-24	1422–1426	..	12	13	75	50.0	1080	Def.
Orton Pool											
The Texas Co.	Orton 1	Sec. 2 S.P.R.R. Sur.	5-24-24	1587–1593	15	17	5	145	23.5	440	Not Def.
Green & Flowers Pool											
Green & Flowers	Abercrombie-Taylor 1	Blk. 45 Harris Sub-Div.	4-26-24	1391–1398	130	9	10	70	8.3	1020	Def.
Brader Pool											
R. R. Brader et al.	Farmer 1	Wm. Baker Sur.	.....	1262–1268	75	4	11	62	25.0	630	Practically Def.
Wilmot Pool											
Mid Texas Oil Co.	H. Wilmot 1	Geraldine townsite; Secs. 22,23,24,25,26, 27,29,30,31,34,35, 36,37,40,41 and 42 American Tribune New Colony Lands; E. Hall Sur. Secs. 2 and 4 S.P.R.R. Sur. and Sec. 26 H&TC RR Sur.	6-16-23*	1600 and 1300 ft.	60	496	145	145	34.2	....	Practically Def.
Waite Phillips Pool											
Waite Phillips	Wilson 1	Wm. Horritts Sur.	.....	1531–1534	200	3	1	150	10.0	500	Not Def.
Carey Pool											
E. S. Carey	Hausler 1	Lot 16 Thos. McCoy Sub.	9-11-24	1116–1119 1123–1125	100	32	10	360	122.8	853	Def. W. S W and SE
Harmel Pool											
Murchison and Fain-Marland	Harnel 1	NW Cor. Blk 2401, T. E. and L. Sur.	9-20-24	1311–1315	100	57	6	210	91.2	2162	Practically Def.
Ragle Pool											
Knight & Hines	Ragle 2	R. D. Newman Sur.	7-12-24	1073–1084	100	54	10	160	77.4	1334	Practically Def.
YOUNG COUNTY POOLS RELATED TO ARCHER DEVELOPMENT											
Litchfield Pool											
Litchfield et al.	Campbell 1	3 Mi. east of Olney	Late in 1924	1030	75	5	2	150	84.0**	....	.....
Gambrell Pool											
Murchison & Fain	Gambrell 1	Near Litchfield Pool	Late in 1924	1204–1216	540	4	2	250	181.0**	....	.....

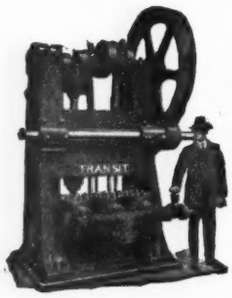
*—Mainly developed in 1924
**—1-31-1925 Record

Pools in Archer County Opened Prior to 1924

Pool—Opened By	Discovery Well	Location	Date	Oil Sand	Producing Wells 12-31-23	Average Initial Production	Per Well Average
Andrews-Miller Pool							
Poppenberg & Miller	Andrews 1 ***	S. E. Part of County	1911	920–	8	..	3.0
Panther Pool****							
Panther Petroleum Co.	L. F. Wilson 1	N. Central part of County	9- 6-16	1630–1636	10	20	5.0
S. M. Gose Pool							
Texhoma O. & R. Co.	S. M. Gose 1	.....	6-19-21	1599–1608	83	150	17.9
Dalmar Pool							
Dalmar Oil Co.	Crawford-Plowman 1	4 Mi. NE of Archer City	5- 5-22	1021–1023	4	20	4.0
Lawrence Pool							
Lawrence Gas Co.	McCall-Sanderson 1	S. of Holliday Townsite	9-15-16	610– 614	9	7	1.5
Carl Parker Pool							
Carl Parker	J. L. Jackson 1	.....	7- 6-22	668– 675	16	18	4.0
Freeman-Hampton Pool							
Freeman-Hampton Oil Co.	Ferguson 1	Northern Part of County	8- 1-22	1400 1500 1700	295	150	23.7*
Peterson Pool							
Lomax et al.	L. F. Wilson 1	1½ Mi. East of Gose Pool	3- 3-23	1574–1578	52	150	31.7*
Swastika Pool							
The Swastika Synd.	Richardson 2	S. W. Part of County	5- 4-23	1381–1394	62	50	65.4*
Sunshine State Pool							
Sunshine State Oil & Refg. Co.	Parish 1	Near Peterson Pool	5-21-23	1571–1573	80	75	65.0*
Sibley Haynes Pool							
Sibley Haynes et al.	J. H. White	White Farm	6- 4-22	1447–1449	1	35	5.0
Tad Wilson Pool							
Texhoma O. & R. & Erwin	Tad Wilson 1	West of Gose Pool	9-10-23	1622–1624	2	75	10.0
Lyles Pool							
Texhoma O. & R. Co.	J. D. Lyles 1	.....	7- 4-23	1676–1677	..	100	6.0
Barkley-Meadows Pool**							
Barkley-Meadows	L. F. Wilson 1	.....	11- 3-23	1534–1548	..	60	15.0
Hackman-Sanderson							
Hackman-Sanderson	No. 1	South of Holliday	1923	160 500	3	..	3.0

*—Semi-settled
**—Generally included with Wilmot Pool
***—First Oil Well in Archer County
****—First 1600 foot production in Archer County

TRANSIT PUMPS



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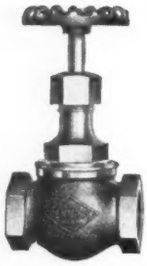

Fig. 106
Screwed, Standard Bronze Globe Valve

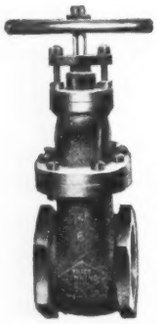

Fig. 325
Screwed, Standard Iron Body Gate Valve

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field which has always lacked economic importance for petroleum. Like Montague county, on the east, however it has shown greater importance in the natural gas division.

Probably both these counties will assume greater importance in the petroleum realm eventually. Three producing oil wells were completed at shallow depths in Montague county in 1924, these wells averaging initial productions of 30 barrels each. Test operations resulted also in the drilling of 11 dry holes in Montague; and three gas wells with combined capacity of 122 million cubic feet daily.

The first oil bearing horizon is found north of the town of Nacona, Montague county, at about 900 feet and the lower pay is at 1400 feet. The productive strata are of Pennsylvanian age.

Area of 1925 "Wildcatting"

Although "Wildcatting" will proceed in 1925 in the counties bordering the Red River, from Wilbarger on the west to Grayson on the east, the attempt to find new fields will hardly reach the consistent stage of operations to be pursued in a southwesterly direction from Wichita Falls through Archer, Young, Throckmorton and Baylor counties.

The inexpensive character of operations in this southwesterly trend makes for consistent development on the part of both large and small companies. The latter are able to operate on a "shoestring," so to speak, in the beginning; and results are important enough to attract the attention also of the larger operators.

Although no single pool in the trend of Cisco sand development is important individually, in an economic sense, a wider scope of influence is reached by the aggregate of the several fields found from time to time. Almost as many such pools were found and developed in 1924 as there were in the several years preceding; in 1925 there should be no fewer such pools than in 1924, if indeed the number is not greater.

Wichita Falls district production in 1924, by divisions, was as shown in the small table on page 69.

Tampico District Exports

Company	February	March
Transcontinental Petroleum Co. (Standard of New Jersey)	3,213,993	3,132,120
Huasteca Petroleum Co. (E. L. Doheny interests)	3,269,095	4,077,929
Mexican Eagle Oil Co. (El Aguila)	1,060,944	1,995,053
International Pet. Co. (John Hayes Hammond)	.....	.....
Cia. Mexican-Holandesa "La Corona"	931,962	742,369
Mexican Gulf Oil Co.	526,031	381,875
The Texas Company	587,175	617,975
Sinclair Mexican Cos.	136,522	198,256
East Coast Oil Co., of Mexico, (So. Pacific)	157,169	153,635
New England Fuel Oil Co. (Magnolia Pet.)	78,526	.....
Interocean Petrol. Co.	49,751	48,821
Empire Gas & Fuel Co.	98,138	298,370
Penn Mex. Fuel Co.,	47,140	.....
Panuco-Boston Oil Co.	31,710	58,545
Totals	10,233,607	11,804,275
Mexican Oil Exporters Co.	45,451	31,557
Unity Oil Co.	.....	67,770

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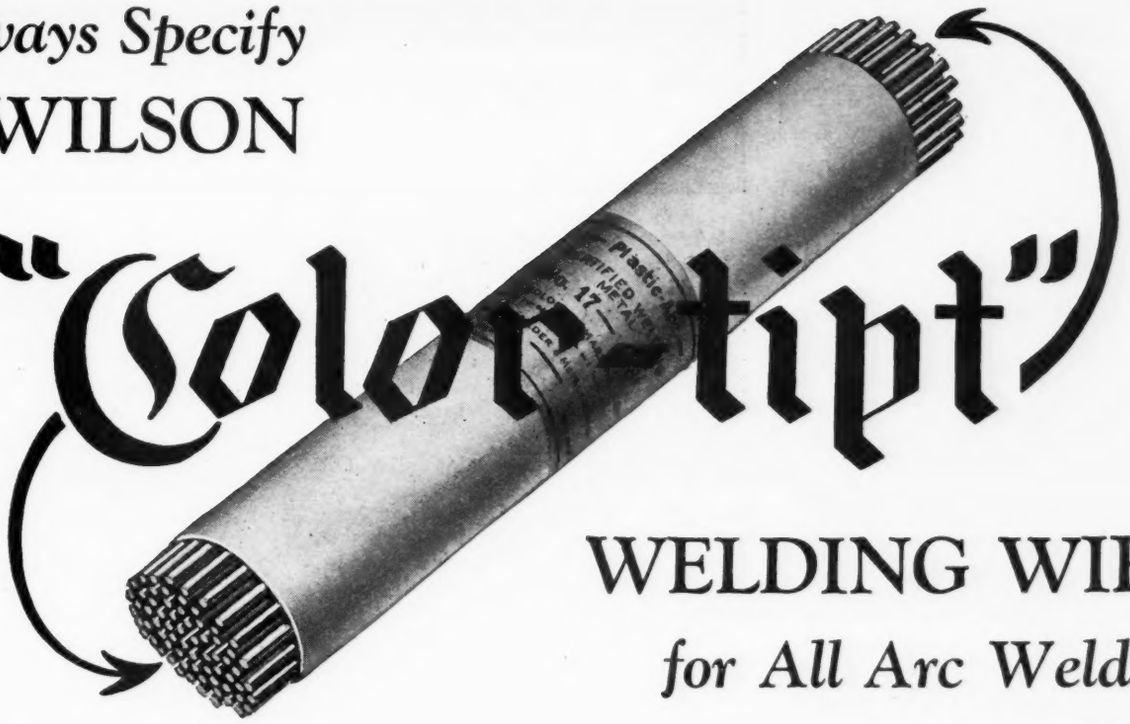

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Diameter Sizes: 3/16", 5/32", 1/8"

For flat, vertical and overhead welding. This wire will produce a weld in steel of over 60,000 lbs. per square inch tensile strength and an elongation of about 15% in one inch in a mechanically sound weld. Machineable at reduced tool speed. For Automobile Frames, Boiler Plate, Cast Steel Parts, Locomotive Frames, Fire Box Seams, Flue Sheet Patches, High Pressure Boiler Work, Oil Pipes, Gas and Steam Pipes, Ship Plates, Tanks, Fish Plates, and Rail Bonds.

No. 20

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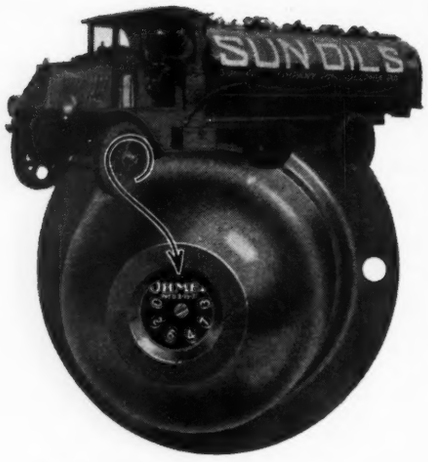

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They give warning that a change of oil is necessary.

They show which driver is the most careful and efficient.

In a word, Ohmer Hub Odometer records show your hauling costs right down to the last dime. They enable you to stop the leaks and to put every truck in the profit column.

In no other way can you get these vital records so necessary to profit in truck operation.

The Ohmer Hub Odometer is made for all types of trucks. And the price is surprisingly low—Fords $12; Chevrolet, Overland and Star, $15; all other makes, $20. Service Stations in all principal cities.

Write for our booklet telling you why and how you can keep records that cut trucking costs to the bone.

Mail the coupon.

OHMER FARE REGISTER CO.
DAYTON, OHIO.

OHMER
HUB ODOMETER

A Simplified System of Automobile & Truck Cost Accounting

Ohmer Fare Register Co., Dept. H. Dayton, Ohio.
Gentlemen: Please mail to us, without cost and without obligation, your booklet on reducing truck operating costs.
Name .....
Address .....

NEW OIL STATION CONSTRUCTION

Washington, D. C.—Lord Baltimore Filling Stations, Inc., with offices at 3701 13th St., N. W., a subsidiary of the American Oil Co., Baltimore, Md., has recently completed its seventh service station here and has secured sites for three additional stations, which will be ready for business by June.

* * *

East Liverpool, O.—Ohio Valley Oil Co., of which Frank G. Jones is owner, and which operates a bulk station here and four service stations at outside points, will build two service stations.

* * *

Sisseton, S. D.—H. Brewster and Bert Hilt building service station, and will install storage tanks to hold gasoline and oil purchases in car lots. Standard of Indiana products will be handled.

* * *

Coon Valley, Wis.—Lloyd R. Brye building service station, and will handle Steponet gasoline and other petroleum products of Westbrook Tank Line Co., St. Paul, according to W. A. Marin, secretary.

* * *

Rochester, Minn.—Olmstead County Oil Co., of which E. J. Fogerty is president and William Fogerty, vice president, both formerly with Hawkeye Oil Co., building filling station.

* * *

Onalaska, Wis.—Vernon Dale erecting service station, to be operated as Better Service Station, handling products of Westbrook Tank Line Co., St. Paul.

* * *

Canton, Kan.—Canton Co-Operative Oil Co., new company, will operate filling stations and trucks, and buy gasoline and oil in carload lots.

* * *

Shawneetown, Ill.—Charles V. Parker Co. to build filling station. Home Oil Co. and G. E. Mathis also seek permits for filling stations.

* * *

New England, N. D.—John Matychowiak will operate new service station being built by Economy Oil Co.

* * *

Olivia, Minn.—Otto Mortenson and Mike Halleran of Hector, Minn., purchased site for filling station.

* * *

Memphis, Tenn.—Pan-American Southern Petroleum Co. purchased property for service station.

* * *

Morton, Minn.—W. W. Drury, tank wagon driver for Sinclair refining Co., will build filling station.

* * *

Yukon, Okla.—Marland Oil Co. building service station.

Perry, Fla.—Standard Oil Co. of Kentucky has begun construction of a service station here, costing approximately $8,000. The company recently purchased another location for a filling station, to be built later, according to L. B. Clark, agent.

* * *

Geneva, Minn.—S. Torgerson to build service station and handle Standard Oil Co. of Indiana products. Plans to add tourist park and rest room.

* * *

Aberdeen, S. D.—J. J. Donahue, proprietor of Donahue Fuel Co., to build service station, handling White Eagle gasoline and oils.

Marketer to Erect Six Stations; More Later

Lewisburg, W. Va.—The Greenbrier Oil & Gas Co., which has just been incorporated for $100,000, and which has taken over the business of Greenbrier Oil & Gas Co., of this city, has leased a site in Charleston, W. Va., for a service station. The company has also secured locations on the Midland trail between Charleston and White Sulphur, W. Va., with the expectations of erecting six additional service stations this year.

Later the company expects to build more stations between White Sulphur, W. Va., and Washington, D. C. Real service will be given tourists as well as local trade, according to John Welde.

Ontario, Wis.—Harold Stoddard building service station, to handle products of Westbrook Tank Line Co.

* * *

Sulphur, Okla.—Mr. Shegog completing filling station, to be operated in connection with Tourist Garage.

* * *

Canton, S. D.—D. F. Dexter purchased property for filling station, garage and repair shop.

* * *

Syracuse, N. Y.—Harrison-Warren Realty Co. seeking permit for service station.

* * *

Lansing, Mich.—Pulver Bros., oil distributors, building filling station.

* * *

Stanley, Wis.—Westbrook Tank Line Co., with headquarters at St. Paul,

QUALITY PRODUCTS L-B *SHIPPED PROMPTLY*

An Important Question and the Answer

WHY do such a large number of discriminating jobbers depend upon L-B greases? How have we been able to retain this confidence and patronage?

Here's the answer! It's the spirit behind our organization. It's a real desire to render service—the sincere kind—that always considers the interest and the success of our customers.

This spirit, together with our efficient plant equipment, our high uniform quality and the delivery service made possible by the 26 railroads through Hammond—hold L-B customers.

Does this sort of business relation appeal to you? We would like the opportunity of discussing your requirements.

All L-B products may be obtained under your own brand if desired. We issue a regular quotation sheet and will be glad to place your name on our mailing list upon request.

Lloyd-Breckenridge Grease Co.

HAMMOND — INDIANA

Serving the Jobbing Trade Exclusively

Minn., building a station to be completed and in operation by May 5, according to W. A. Marin, secretary.

* * *

Spring Valley, Wis.—Gust Nord and John Brockley building service station, to be operated under name of Spring Valley Oil Co.

* * *

Stanley, Wis.—Northwestern Oil Co. and Standard Oil Co. of Indiana reported to erect service station.

* * *

Hastings, Minn.—L. P. Kingston, of this city, purchased property at River Falls, Wis. for filling station.

* * *

Fond du Lac, Wis.—Frank Ousterling building service station to handle Standard Oil products.

* * *

Morehead City, N. C.—Standard Oil Co. of New Jersey purchased property for service station.

* * *

New London, Mo.—Paul Resnick purchased property for filling station, it is reported.

* * *

West Bend, Wis.—O'Neil Oil Co. building filling station at Main and Walnut Sts.

* * *

Princeton, Minn.—Earl E. Iverson, of St. Cloud, Minn., to erect filling station.

* * *

Cape Girardeau, Mo.—Standard Oil Co. of Indiana to build filling station.

* * *

Green Forest, Ark.—Wilson Bros. purchased property for filling station.

* * *

Rapid City, S. D.—Standard Oil Co. of Indiana building service station.

* * *

Washington, Ia.—Standard Oil Co. of Indiana building service station.

* * *

West, Tex.—Ira Clayton building service station on K. T. Highway.

* * *

Rapid City, S. D.—Standard Oil Co. of Indiana building filling station.

* * *

Red Oak, Ia.—Standard Oil Co. of Indiana to build service station.

* * *

Siloam Springs, Ark.—Marvin Vanhoosier building service station.

* * *

Fergus Falls, Minn.—Lindquist Bros. seek permit for filling station.

* * *

Woodford, Ill.—J. A. Ervin purchased site for filling station.

* * *

Fayetteville, Ark.—Kelley & Phipps building filling station.

* * *

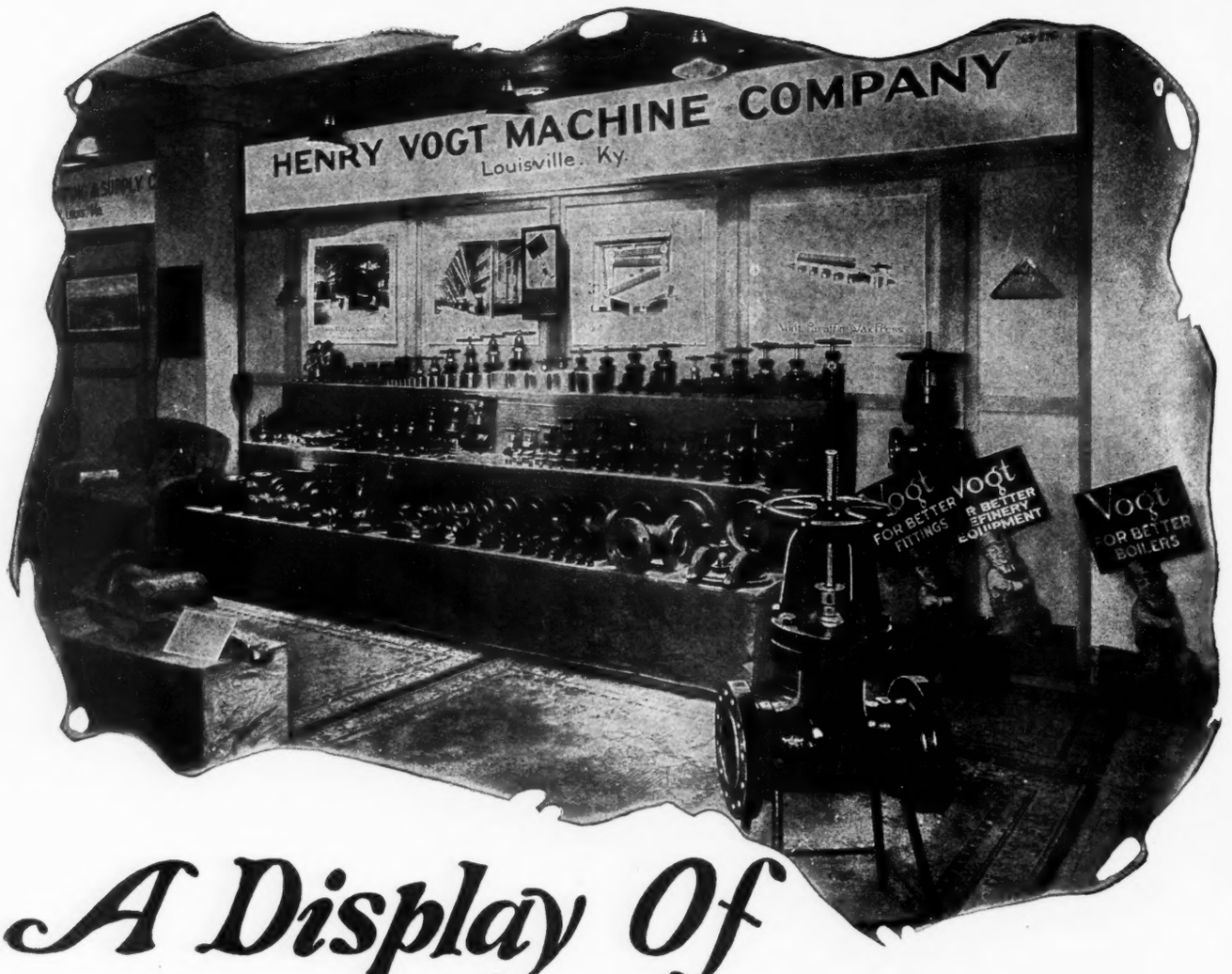
Jackson, Mo.—Barnsdall Refining Co. to erect filling station.

* * *

Brooks, Ia.—Deep Rock Oil Co. building filling station.

* * *

Osceola, Wis.—A. E. Dodd to build filling station.



A Display Of

Vogt DROP FORGED STEEL VALVES AND FITTINGS

You are cordially invited to visit this interesting display at the SPRING MEETING *of the* A. S. M. E., *Milwaukee, May 18-21, 1925*

This display covers a range of fittings from ½" ells to the huge 6" drop forged steel gate valves. We have spared no expense to make this display attractive to those interested in valves and fittings, for high pressures and temperatures.

Booths Nos 15-16-17

HENRY VOGT MACHINE CO.
INCORPORATED
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New York **Chicago** **Philadelphia** **Dallas**

Manufacturers of: DROP FORGED STEEL VALVES AND FITTINGS, OIL REFINERY EQUIPMENT, WATER TUBE AND HORIZONTAL RETURN TUBULAR BOILERS, ICE MAKING AND REFRIGERATING MACHINERY.

Safety in Gasoline Manufacture A Matter of Educating Workmen

By C. L. Swim

Safety First Department, the Skelly Oil Co.

Delivered at Meeting of Association of Natural Gasoline Manufacturers, Tulsa, April 22.

THE making of gasoline is not the hazardous business it is popularly supposed to be, however, the oil industry as a whole has an accident experience very much in need of improvement.

It matters not how much gasoline you make unless you make it at a profit.

The business concern that makes a notable success in the future is the one that has eliminated waste. The waste of effort and of money which result from unsafe practices is the least defensible of the wastes you may have for by no method of bookkeeping can it be made to show an offsetting return.

Accident prevention in the oil industry has passed the experimental stage. It is no longer looked upon as welfare work, but is now considered as an important factor in production. One of the largest oil companies in America reports that its three years of accident prevention work ended Dec. 31, 1923. resulted in a reduction of 50 per cent in the frequency of accidents causing a loss of time and a reduction of 52 per cent in the total cost of accidents.

One of the very large rubber companies advises that two years after actively beginning accident prevention work its lost time accidents showed a reduction of 62.7 per cent and that seven years after beginning such work the reduction was 86.3 per cent.

Accidents do not happen, they are caused. We find upon careful examination of thousands of accidents reports that their causes may be divided into two major classes, i.e., by machinery, through failure to properly safeguard it, and secondly by the human element. These classifications each suggest their remedy, the first being to guard properly such machinery as constitutes a hazard to life and limb, and the second to sell the employees the safety habit and see that they all stay sold.

Human Element Chief Factor

Further analysis of these accidents reports discloses that not to exceed 15 per cent of all injuries are caused by machinery while 85 per cent or the great majority of accidents are due to the human element. This shows at once the relative importance of selling safe habits to the employees. You may guard your machinery with all the devices on the market and still your plant is no safer than are the employees who work in it.

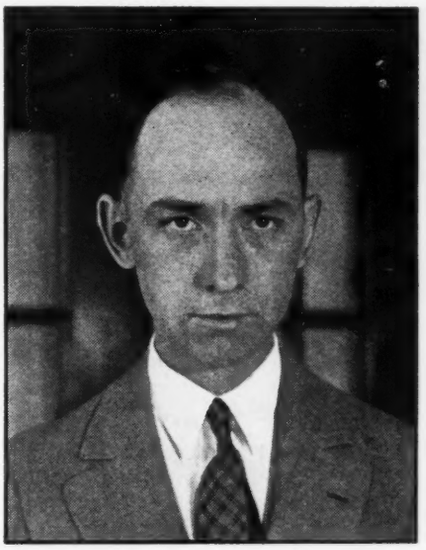
Briefly the lines of approach for a comprehensive safety program are:

1. Physically fit and mentally alert workmen.

2. Such mechanical safeguards as are necessary to provide a safe place to work.

3. Educational and personal effort to inculcate safety habits with their attendant safe practices.

At the bottom of and as a foundation for every safety program I would place medical examination of employees.



C. L. Swim
Skelly Oil Company

By such examination you will be able to avoid getting those into your employ who by reason of accident or disease are a liability rather than as asset from the day they enter your service. In addition to this you will be able to place your men at such work as they are physically able to do and will avoid, for example, causing the death of a man who may be perfectly able to do most kinds of work but who would be overcome by working in a place of extreme temperature by reason of his heart action or high blood pressure.

Let me warn you here that a man does not have to be advanced in years to have high blood pressure. Those of us who have kept records of those things could give you examples of men in their twenties who are thus afflicted.

Avoid Physically Unfit

When I say that by medical examination you will avoid the employment of men who are a liability rather than an asset I mean you will find some who are suffering from a previous injury or disease, and more often the latter, the effect of which is such, that, in case they sustain a minor injury while in your employ, there will develop complications not yielding to treatment, resulting in a long drawn out and very expensive case, which by the laws of most of the states you are required to pay for without having been responsible for more than the minor injury.

No machinery is dangerous except in the sense that it is easy for the employee to come in contract with it, by slipping, falling or being brought into it by auxiliary or adjacent machinery, and this angle should be kept clearly in mind in considering the hazard of any machinery in the plant. Selling the safety habit to employees is a fertile field for your cultivation and one in which you will need to bring into play all the ingenuity at your command. Experience has proven that safe habits and safe practices can not successfully be crammed down employee's throats but must be sold to them.

Catch Him Early

The new employee who has passed a satisfactory medical examination is in his most receptive mood for the installation of safety ideas. He is anxious to make good he wants to please and if at that time his foreman explains his duties and how to perform them safely, and that safe practices are a cardinal principle at that plant, there has been a very effective work performed

I am quite sure that this best of all opportunity to sell the new employee, your company, its standards and to install in his mind your safety ideas is too many times overlooked. Records of injuries show that new men sustain injuries all out of proportion as compared to those who have been employed for longer periods. There is no doubt that this arises from his unfamiliarity with his working conditions, his lack of knowledge of how to do his work the safe way, and his hesitancy in asking his foreman or those with whom he works for advice. The acquisition of habits of safety on the part of employees does not happen over night, nor in a month.

It is a continuing educational process and for that reason our accident prevention work cannot be accomplished by spasmodic efforts but on the contrary must be consistent, sensible and sustained.

The key men for the accomplishment of this are your superintendents and foremen. These men should be made thoroughly familiar with your ideas, aims, and the reasons therefor, they should be entirely sold on its merits and their

EM 261

Another KELLOGG Achievement

The Kellogg EM 261 has been found most economical by gasoline filling stations using air operative pumps as it gives a maximum of uninterrupted, day in and day out, month after month service, and requires minimum attention from the operator.

KELLOGG FEATURES
That Assure Your Satisfaction

Self cleaning check valves.
Dual disc valves of vanadium steel.
Patented Kellogg combination pump and splash lubricating system.
Pressure relief.
Honed cylinders.

Price $320.00*

KELLOGG MANUFACTURING COMPANY
ROCHESTER, N. Y.

**Special motors or tanks at correspondingly low prices.*

ADVANCE
Cold Tested Lubricants

are guaranteed to retain their lubrication value under extreme cold condition. This essential quality is responsible for their preference.

AMERICAN
Oil Corporation
Jackson, Mich.

Fashions in Oil

LIKE the fellow who made a better mouse trap, the French dressmaker is having a beaten path made to his door, at the expense of American shoe leather.

Womenkind appreciate the necessity of showing their wares to best advantage and the value of a varied appeal.

As all merchandising methods are fundamentally similar, the more-to-be-pitied-than-censored sex can capitalize on these truths, discovered and practiced successfully by those who buy and those who would like to buy Parisian gowns.

As Oil Samples partake of feminine characteristics, you who sell Oil would do well to dress your samples in a new L-U-C-E gown. The latest style in Oil Sample Cases is our new 209—

The bottles are held securely at the bottom by a narrow ledge, and at the top by a spring clip around their neck. There is a partition between each bottle which eliminates any chance of breakage and scratched labels.

The case itself has a stiff box frame, covered with smooth black cowhide, French sewed at edges, and lined with red velvet. Contains fourteen 4 oz., cut-bottom bottles with metal capped corks and ten ½ oz. squat grease jars held by adjustable bar. Complete, with your name embossed in gold, only $15.75 Subject to 10% discount for cash.

Other Styles in our FREE Catalog

L-U-C-E

Builders of Sales Luggage
614 Delaware KANSAS CITY, MO.

support enlisted. It is through them you must work and through them the rank and file of your employees have their contact with the company and unless you can completely sell them you cannot hope to do much with the man under them.

Meetings Valuable

Your program of accident prevention can most effectively be carried to the men by having meetings called by the superintendent or foreman in which these matters are discussed, unsafe practices pointed out, and safe practices emphasized. Fully as important as this are bulletins which will tend to create safety habits by persistently and from various angles presenting the safety idea. In addition, much good may be accomplished by giving particular attention to the individual who sustains frequent injuries.

There is another phase of safety, fire prevention, which on account of its close relation to the human element can well be made a part of your program. Every fire collects a toll in property and in many cases lives as well. Property destroyed is not only wealth destroyed but a destruction of the power to produce more wealth and although there is a tendency sometimes to feel that if the property was insured the loss is small and may be disregarded, this is a mistake for the reason that insurance companies know their business even as you do yours and there is a direct relation between the cost of fires and the insurance premium you pay to have the insurance company pay the loss. Whenever a fire injures, or even worse, kills a workman, the cost of medical attention and compensation, which the laws of most of our states lay upon industry must certainly be classed as a loss for which there is no corresponding gain.

All this without considering the impaired efficiency, loss of time and lowering of morale. All of which cost money and although the cost may be hard to put into cold type it will eventually find its way into your books. In addition to the very real losses just enumerated which result in varying degrees from every fire, there is in many cases a loss of profits due to the shut down of the plant and in the form of inability to fulfill contracts, cost of maintaining the organization, obligation to purchase materials and supplies for which there is no present use and many others which will suggest themselves to you.

We are all familiar with smaller concerns especially where a disastrous fire has meant the beginning of the end of their existence.

Government Interference

There is another real factor to be considered as one of the forms of loss in connection with fires and this applies with particular force to you who are engaged in the manufacture of gasoline on account of the fact that in your business explosions are in many cases the cause of the fire or coincident with it.

Barrel Flanges That Combine Low Cost and High Quality

Made of pressed steel.
Low welding cost. Proper tolerances insure perfect fit of plugs.
Tight Seal.
Flange flush with barrel shell.

Gasket surface smooth and flat.
Made in 3/4", 1 1/2" and 2" sizes.
Standard thread as used by all barrel manufacturers.

Write us for prices.

THE BETTCHER STAMPING & MFG. COMPANY
CLEVELAND, OHIO

TRY this Foot Valve in your Gasoline Storage Tanks

The Buckeye Foot Valve has won the approval of leading oil companies, pump and tank manufacturers.

The valve is made with a *flat* seat and a *flat* disc—the best design yet developed for holding gasoline.

The only movable parts are the discs. There are no nuts, cotter pins, or loose pieces. It is made entirely of the very finest grade of brass.

Every valve is especially ground for gasoline and given a bubble test before shipment.

The screen is easily removed for cleaning.

Made in both Single and Double Poppet types. Let us send you a sample valve for inspection.

Mail the Coupon

BUCKEYE IRON & BRASS WORKS
356 East Third St., Dayton, Ohio
Mfrs. of Quality Brass Goods since 1860

Mail this Now

BUCKEYE

Buckeye Iron & Brass Works
356 East Third St., Dayton, Ohio

Without obligation, send us your booklet on Oil Equipment and Filling Station Fittings. We are particularly interested in No. . . . . .

Name . . . . . .

Address . . . . . .

GREASE

A Little better than best~

PRODUCTS

Industrial Lubricants
Automotive Lubricants
Greases
Soaps
Castor Machine Oil
Waverly Spirits
Refined Paraffin Wax

A little better than best, because it is always uniform in analysis and performance. Even the best greases sometimes fall down on this score.

But Waverly greases, in quality, uniformity, and service, are two things you can bank on. Dealers and jobbers everywhere are capitalizing on the reputation of Waverly products because a customer, once sold, always comes back again.

Repeat business is what counts in your business as well as ours and Waverly products are repeat business insurance.

And don't forget that Waverly Auto oils are refined from Pennsylvania Crude Petroleum, the best in the world, and carry the insignia of the Pennsylvania Grade Crude Oil Association. A genuine demand has been created that cannot fail to profit the dealer and jobber alike.

Send for samples and see for yourself.

Under proper guarantees, we will appoint exclusive local distributers. Details of our proposition will be sent upon request.

FREE BOOKS

1000-Page Jobbers Handbook. Gratis to Oil Firms. Extra copies and individuals $1.00.

Industrial and Automotive Lubrication Manual and Charts

A treatise on Industrial and Automotive Lubrication and precise recommendations for the lubrication of all standard industrial machines and automobiles.

The only book of its kind in print.

Waverly Oil Works Company

5409-54th STREET PITTSBURGH, PA.

Established 45 years

100% PURE PENNSYLVANIA OIL

Member of Pennsylvania Grade Crude Oil Assn.

100% PURE PENNSYLVANIA OIL

STATION TANKS

Field	10,000 gals.	in stock	Refineries
Storage	12,000 "		Complete
	20,000 "		

Immense Stocks ***Immediate shipment***

We have been in the business since 1871 and fully understand your requirements. Wire, write or phone your inquiries.

The Reeves Brothers Company

Alliance, Ohio

I refer to the attempt on the part of governmental agencies to regulate your business by law.

We will agree that the less regulation of business by governmental agencies there is the better it is for the industry. Legislative bodies cannot be as familiar with the problems involved in manufacturing and transporting gasoline safely as you who are daily in contact with those problems, and yet do you think the Ardmore disaster of a few years ago could be repeated many times without there being an attempt made to regulate the transportation of gasoline by legislative enactment. You who make gasoline know that gasoline is safe when safely handled, but this very knowledge on your part lays upon you the obligation to set for yourselves such standards, and to so train your employees that the minimum of accidents may occur.

Summing up this question, accidents and fires cost the individual, the employer and the industry, and in no case do they show a profit. On broad humanitarian grounds it is the duty of the employer to do all he reasonably can to safeguard his workers. However, experience has shown time and time again that safety work can be justified on a strictly monetary basis, although not all savings can be shown as tangibly as the direct cost of accidents.

The effect of better guarded machinery, the installation of various safety standards, better plant layout, better housekeeping, better ventilation, better lighting, better all around working conditions, a better morale and increased loyalty on the part of employees, not only reduce accidents, but increase operating efficiency and often actually decrease operating costs.

It can be done, it has been done. One plan of the International Harvester Co. employing 150 men did not have an accident causing a loss of time in 12 months. Another company employing 180 men has not had an accident causing a loss of time for four years. These results did not just happen but are true only where a systematic, sustained safety program is in effect.

Safety is not a one man job but everybody's business. Therefore, if safety work be so organized and conducted as to enlist the co-operation of both the supervisory forces and the rank and file of employees, there is no substantial reason why industry in general cannot do much to reduce the loss of life, limb, time and property which follows in the wake of industrial accidents. Service to our fellowmen and business efficiency make an irresistible combination.

MELVINA, WIS.—J. H. Chapiewski will operate a service station here as the Melvina Service Station, and will handle Steponet gasoline, lubricating oils and greases of the Westbrook Tank Line Co., St. Paul, Minn., according to W. A. Marin, secretary.

Western Jobber Pleads for N.P.M.A. Collective Buying Plan

CHICAGO, April 30

PROTECT your Independent source of supply, even if it does make gasoline cost you a little more, even if the world does seem flooded with gasoline right now, because 10 years from now your business existence may depend entirely on a source of supply. Those are not the exact words, but the tone of an address delivered in Chicago recently before the National Petroleum Marketers' Association convention by Harry F. Brownell of Sioux Falls, S. D.

Not all of the addresses made before this Spring Industrial Conference were published in National Petroleum News. Indeed it was thought once that none would be, but special requests from readers for Mr. Brownell's address has created a demand, and it is presented herewith, almost in full:

"I have a little boy at my house about seven years old, and a few days ago his mother said:

"'Well, I think Bobby is going to be a politician.'

"I said 'Why?'

"She said, 'Well, you know lately he seems to be able to say more things that sound all right but don't mean anything, than any kid I ever saw.'

"And this has some bearing on whether we can afford to give our business to integrated refiners, and I want to hook up that with this matter of collective buying which is scheduled for discussion later. I am going to hurry the program up a little bit.

"A man just said a few minutes ago that the most important thing that this convention can discuss was a source of supply. I have heard several of you talk about it with respect to your own business. I have come to the conclusion that some of us are a little alarmed about the source of supply. I am alarmed too. I didn't sleep very well last night and I am just a little pessimistic this morning.

"The source of supply being in danger looks like a kind of a dream a long way ahead because just now the world is drowning in gasoline. All you have to do is to send out a little notice that you would like to buy 25 or 30 cars of gasoline and you can just get a flock of men around that are glad to sell it to you. That is the situation today, but I ask you now, have you considered what the situation will be not next summer but 10 years from now?

"Maybe you fellows have all got to the point where you have made enough money, where what happens in 10 years doesn't make any difference. Maybe you are going to retire now. If you are that kind of an oil dealer, then what I have to say doesn't interest you much. But the subject interests me a whole lot, because I am going to stay in my business for 10 years and I am going to build it as good as I can so that when this boy comes up and decides to be a business man and not a politician I will have a business for him.

"As I see it, there is just one way I can do that, and that is to assure myself, of an independent source of supply, because I don't want to work for the Standard Oil Co. nor the Shell interests nor anybody else. Unless I have an Independent source of supply, some day I anticipate I will wake up and find myself getting a commission of 2 cents a gallon working for some of these other fellows, and I don't fancy that prospect.

"Don't you think that is idle talk? That is just as clear a danger to me as any danger that exists in my business. Now if a source of supply is necessary, how are we going to get it? There are 250 odd refineries operating in this nation today. Out of 250 refiners, 20 make 51 per cent of all the gasoline. Just let that sink in a minute.

"Here is the next astonishing thing. The 20 that make half of the gasoline distribute this gasoline themselves mostly, with the exception of one refiner. The 20 that distribute this gasoline have money enough and brains enough to distribute all the gasoline. They have, in my state at least, equipment enough by adding a few trucks here and there to distribute all the gasoline South Dakota requires. That may not be true in every state, but do you doubt this? They are perfectly willing to do it! And do you doubt this? They are perfectly able to do it even though they had to build a few more plants!

"What I am getting at is this: Why do these 20 refiners who make half and would be glad to contribute the other half, need you and me in this picture? Do you think they wouldn't welcome the day when we were not in the picture? Do you believe that because the Standard Oil Co. is friendly and good, clean competition and composed of upright and honorable men they wouldn't hold a jollification banquet on the day we all quit? It is just common sense that they can get along without us very nicely.

Must Assure Supply

"This I am not so sure about. I may be wrong, but I think these 20 refiners that I referred to might get together some day in somebody's office and look the situation over and find out that if they would get together a little pot of money and buy out four or five of the other refiners that make the other half, your gas and my gas would command so great a premium that we might just as well close up.

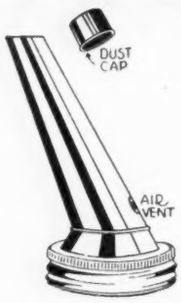
"Let's look the thing in the face. If we want to stay in the gasoline business, we are going to have to assure ourselves of a place to buy gasoline. A fellow said to me the other day, 'Well, I have been in business 15 years, and all that time I have heard that the Independents were going to be put out of business, but they are still here more than ever.' That is true, but the astonishing thing to me is that a man could be in the gasoline business 15 years and not read the handwriting on the wall. He wasn't reading it.

"In 15 years he had not discovered that there were changes going on in the production and distribution of gasoline, and that the changes were heading to one point, the elimination of the man that did not have his own refinery. It is moving that way just as rapidly as economic development and governmental restriction will permit. Don't you guess otherwise for a minute.

PROTECT YOUR REFINER AND YOURSELF

National Petroleum News has not made an effort to print all the addresses delivered at the 1925 Spring Industrial Conference of the National Petroleum Association in Chicago, April 7, 8 and 9. But persons who heard Harry Brownell's address have asked repeatedly if it was going to be published. Meeting that requirement, here it is, almost in full.—Editor.

Harry F. Brownell
Brownell Corporation, Sioux Falls, Iowa



MASON JAR SPOUTS

Filling Stations are doubling their sales of bulk oil by furnishing this spout with a five gallon can of oil. Your customer has a quart or half gallon fruit jar. This spout will bridge the space from can oil drum to crank case and bring him back for more. Service Station bottles for this spout, full quart—with "Fill Line" 20c each.

Oil tight pan of heavy tin plate. Bottom corrugated to protect bottles from sudden contact with cement floors as the corrugations carry the bottles above the bottom of the pan. The top band and bail are of 1-8"x1-2" band iron. The bail is detachable for convenience in shipping.

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"I have heard a good deal about the integration of the refiner this morning. Why is he doing it? Why is he building stations with every dollar he can borrow? He is building stations because he can do better distributing his own product and taking no chances on finding a market for the gasoline that he produces, and every single refiner today that is making gasoline is trying to finance himself to build stations.

"I have heard about some fellows who advertise that their policy is to sell the jobber only, and I have been constrained

A. L. Lommel, Bartles-Shepherd Oil Co., Waterloo, Ia., came up to the jobbers' convention in Chicago as representative of his company

to say to them that I think it is true for just one reason, 'You haven't got the money yet to build your own outlets and just as soon as I help you get the money by buying your gasoline, you will slip in a few plants of your own.' I know that is true and you know it is true, too.

"There are just three ways to get your own source of supply. One is to build your own refinery and get your own crude. That would be a nice way. I wish I had the money to do that for myself.

"The next way is to make a contract with one of these big ones that have the facilities for making lots of gasoline. Not a contract for a year but for 10 years.

"The third way to get a source of supply assured, is the thing that I consider the most important part of this convention, the biggest thing on the program, is the buying of gasoline collectively from the Independent refiner.

"It looks to me like the collective buying department is the one big outstanding thing in this association right now. There are six or eight refiners that have crude of their own and are smart enough to go out and get plenty more crude and make long term contracts and take this crude when it comes out of the ground and pay for it and continue to supply us gasoline 12 months in the

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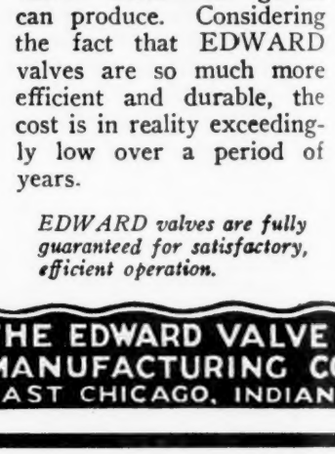

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year if we will tell them we will take the gasoline, but we do not do it that way.

"We send them a telegram and we say, 'What is the price of Navy gasoline?' They wire us back today, for illustration, '10 cents.' We do not buy it. We send out another flock of telegrams most of them collect I suppose, to another bunch of fellows, including Roxana, Sinclair and all the rest of our friends, and they quote us 9⅞ to 9⅛.

"Who gets the order?

"The Independent refiner that hasn't any outlet but us, or the other fellow who is building them as fast as he can? You know who gets the order. Ten dollars on one car outweighs the prospect of some day being unable to get it from anybody.

Keep Refiners Alive

"The collective buying department might be the greatest stabilizer in the petroleum industry if you and I would just support it. That is not my opinion only. I have talked with a dozen or 15 men in this organization, and I have talked with some men outside of this organization, and I am forced to this conclusion, that the future stability of the Independent marketer is tied up, without a doubt, with the problem of keeping alive refiners who do not market their own product.

"Now we can only keep them alive if we assure them we are going to give them a certain amount of business so they in turn can go out and get their crude supply and keep it. Why a man said to me yesterday, 'Do you know what is the matter with these independent refiners?'

"I said, 'No.'

"He said, 'They are just gamblers. They won't do anything for anybody but take every nickel they can out of the business.' There may be something to that, and I think I am just the same. I am just the same as the refiner, I won't do anything for anybody but take that eighth if I can get it.

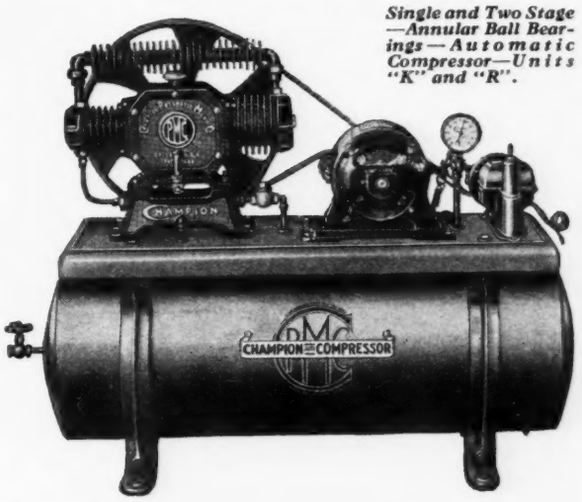
"He said, 'If the Independent wants crude he goes to the producer and wants to buy it. He asks how much crude is. It is $2, and the producer won't take less than $2 because he can sell it to Prairie for $2 and to you for $2.10, $2.15, $2.25.'

"I said, 'What is the answer?'

"He said, 'It is perfectly simple. The Prairie Oil & Gas Co. always takes it and they always write the check twice a month. The Independent refiner takes it when he can and when he can't take it he turns it down. When he goes back and wants it again the producer (and I think justly) says, "I can't afford to take a chance on you but I will take a chance for 25 or 40 cents premium."'

"Now, if we would put the refiners we select to supply us in a position where they could always take the crude, the producer would be glad to sell it to them, I think in many cases in preference to the bigger company. How are we going to do it? If you and I will turn into this buying department this year 25 per cent of our purchases and next year when our contracts are gone

CHAMPION



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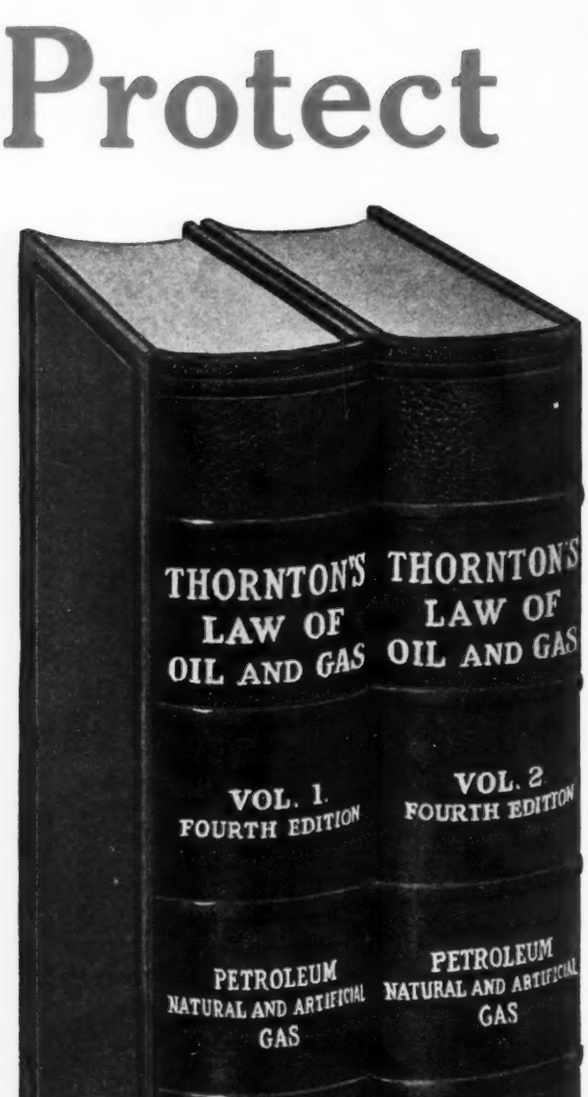
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increase it a little bit, we will be able to go to these refiners and make a deal to take their entire production under an agreement that they do not build any stations, but they continue to supply us and us only.

"It seems to me such a simple thing. I don't know, maybe it is because I am simple myself. But we have 25,000 cars to purchase, and there are two or three refiners that have 25,000 carloads to sell, and unless we keep them in the business we can't stay. Unless they keep us in the business they are going out. So it seems to me we should get together these 25,000 carloads and go over and lay it down and say, 'Here it is, but we want to be sure we are going to get it for the next 10, 12 or 15 years, just as long as we stay and you stay.' If that is sound why don't we do it?

"If the man you buy your shoes from started out doing something to your oil business you wouldn't keep on buying your shoes there. You not only wouldn't go in his store but you would tell all your friends to keep away. Yet you buy gasoline from the very man who is tearing down your business. I am not criticizing you, I am criticizing our industry. I have done it myself time after time. I have bought from the refiner whom I knew was tearing down or ultimately would tear down the entire house I lived in.

"Don't you think this is an exaggeration at all. I have worried about it until I went out and talked to every man I could find whom I thought could see ahead farther than I, and there isn't one but admits that some time in the future the entire business will be in the hands of those who produce the crude, and refine it, transport it and retail it. It is bound to come unless you and I stop it by some action right now or in the near future. I think that thing is the collective buying department. I think if we turn our purchases in and not kick because it was an eighth of a cent higher we would manage that.

Consider the Future

"Somebody told me yesterday that he gave an order to the collective buying department and the same day he could have bought that same gas for ½ cent less. He didn't like it. Well, I would hate to pay ½ cent premium all the time, myself, but I think he can afford to take ½ cent once in a while for the sake of the 10-year period ahead.

"I have an awful grouch against politicians because I have played with them a long time. The politician is around preaching today that there are too many of us in this business and if we were not so many, gasoline would be cheaper. If that doctrine is going to gain headway in this nation and people are going to conclude finally that there are too many of us and we have got to quit.

"I ask you now who is going to quit. Are you? Standard Oil, Shell, Sinclair? You know mighty well who is going to quit. It is going to be you and me. Why not cinch the future if we can? Why not put ourselves in the position where we are not required to quit."

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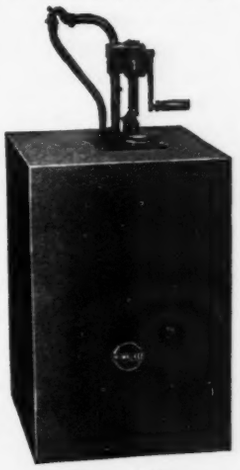

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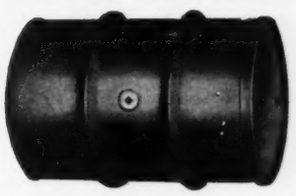

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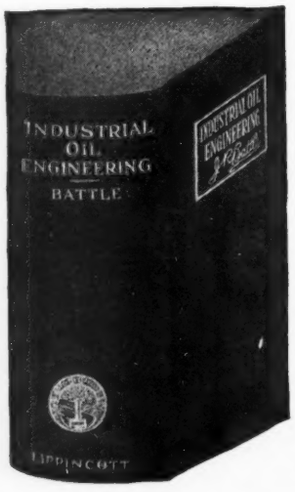

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ON THE LAZY BENCH

Just a Warning

A portly limousine got out of alignment in the Fifth Avenue homegoing rush. A big Irish cop stepped from his post, red with rage and, motioning to the driver, shouted, "Hey, you, pull up there along the curb. I'll hand you a ticket." When the limousine pulled up, a gentle faced man opened the door and in a calm voice inquired, "What is the trouble, officer?" The cop looked and saw it was an archbishop. "No trouble, your riverence," he said. "I just wanted to tell your driver that there is a fussy Protestant cop at that next corner."

—Magnolia Oil News

◈ ◈ ◈

Music Sense

A very deaf old lady, walking along the street, saw an Italian turning a peanut roaster. She stood looking at it awhile, shook her head and said: "No, I shan't give you any money for such music as that. I can't hear any of the tunes, and besides, it smells as if there were something burning inside!"

—Perfect Star

◈ ◈ ◈

Child (pointing to orchestra leader directing Mme. Robusto): "Mama, why does the man threaten the lady?"

Mama: "He's not threatening; he's keeping time for her."

Child: "Well, then, why does the lady scream?"

—Union Oil Bulletin

◈ ◈ ◈

"Mother," cried little Mary, as she rushed into the farmhouse where they were visiting, "Johnny wants the Listerine. He's just caught the cutest little black and white animal, and he thinks it's got halitosis."

—Stanolind Record

◈ ◈ ◈

"I'm afraid, my friend," said the lecturer, interrupting his address to point an accusing finger at a little man who was yawning in a front seat, "that you are not following me closely."

"I'm not a friend of yours," replied the man, truculently, "and I'm not here to listen. I'm waiting to put out the lights in the hall."

—Magnolia Oil News

◈ ◈ ◈

I Wonder

Guest: "Gosh, but I'm thirsty!"

Hostess: "Just a minute and I'll get you some water."

Guest: "I said thirsty, not dirty."

—Perfect Star

Advertising Department Breaks Loose

The paths of glory lead but to the grave.
Eventually, why not now?
The moving finger writes and, having writ moves on.
No parking here.
The course of true love never runneth smooth.
It floats!
Every cloud has its silver lining.
You just know she wears them.
When a man marries, his troubles begin.
Ask the man who owns one.
Faint heart never won fair lady.
I'se in town, honey.

—Perfect Star

◈ ◈ ◈

In New York a man, unmistakably of country origin, was knocked down in the street by an automobile. A crowd instantly surrounded him.

"Are you hurt, my friend?" asked a kindly man who assisted the stranger to arise.

"Well," came the cautious reply, "it ain't done me no good."

—Magnolia Oil News

◈ ◈ ◈

Teacher: "Now, Robert, what is a niche in a church?"

Bobby: "Why, it's just the same as an itch anywhere else, only you can't scratch it as well."

—Union Oil Bulletin

◈ ◈ ◈

Ezra's sure havin' the devil's own time with that mare he got in a swap offen the Rooshin, Monday."

"Balky, be she?"

"Naw, willin' enough, the mare is; but she takes a sneeze fer whoa, and Ezra's got hay fever."

—Magnolia Oil News

◈ ◈ ◈

Without Leaf

Eve (from the bushes)—"Adam dear, close your eyes so I can come home."

Adam—"What is the matter, my own?"

Eve—"I have been A. W. O. L."

—Stanolind Record

◈ ◈ ◈

'Squeer

"Thish match won't light."

"Washa madda with it?"

"I dunno—it lit all right a minute ago."

—Perfect Star

◈ ◈ ◈

The butcher found a homeless dog,
A worthless little bum;
And as he led him home, he said,
"The wurst is yet to come."

—Magnolia Oil News

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2—Refinery Prices

3—Tank Wagon Prices

4—Export Prices (N.Y.)

5—Refinery Directory

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REFINERY-TANK WAGON MARKETS

Group 3 Market is Brighter After Gloomy Week

Staff Special
TULSA, May 2

RETARDED movement of gasoline, lower prices for fuel oil, considerable pessimism over most of the week, but a brighter aspect at its end, summarizes the Mid-Continent refinery situation. Gasoline prices were only fairly well maintained with no tank wagon or crude price changes to disturb the market and most refiners reported lubricating oil business satisfactory. Natural gasoline continued to climb.

Refiners this week have found much dissatisfaction with the amount of new gasoline business reaching the field, and the lack of orders has no doubt in large measure been caused by cold and rainy weather over practically all of Mid-Continent consuming territory. The jobber has, in the main, shown little desire to purchase for other than immediate needs and the constant pounding away at prices by brokers endeavoring to find material to be delivered before the end of April caused little joy to sales managers in general.

U. S. Motor gasoline was 10¼ to 10½ cents on Monday, with some refiners reporting sales at 10¾ cents, but toward the middle of the week sufficient 10¼-cent material had developed to make higher priced sales few and far between. Marketers in some instances found 10-cent material for both prompt shipment or delivery over part of May, but it was never freely available and quotations were showing every evidence of being firmly held at the close of the market.

Prices Too Low

While most refiners are anything but wildly optimistic regarding high gasoline prices this year, the feeling is general that he must receive more money for his gasoline if operations over the summer are to show a profit. With a recent swiftly diminishing revenue from fuel oil, and the bottom not yet in sight, and little hope for much improvement in kerosene it would appear that the motor grades of gasoline must more than ever bear the load of maintaining the balance on the right side of the ledger.

While there is still uncertainty as to the probable trend of the crude market, many refiners do not feel that general postings in the Mid-Continent will be lowered soon. Smackover, of course, is still the unknown factor, but outside of this pool, production in the United States as a whole has shown comparatively little change in the last month. There are few developments in the Mid-Continent which would indicate immediate reduction in prices for higher gravity crudes.

Motor grades of gasoline are now bringing little more than in the latter part of January after the first general Prairie crude price advance, but the nearness of the heavy consuming season and prevailing prices for crude have done much toward preventing further lowering of quotations. The important factor is the fact that many refiners cannot show a profit on operations under present prices. Many of them claim they are operating at a loss.

Position Seems Sound

Statistically, the position of gasoline at Mid-Continent refineries continues sound. In contrast with other years when gasoline stocks have increased up to the season of peak demand, they have been gradually lowered during the past few weeks. In the four weeks ended April 24 the 118 refiners who report to National Petroleum News shipped 5,428,592 gallons in excess of production, and their total stocks of all grades of gasoline were 79,632,308 gallons, or only 18 days' supply at the rate of shipment for the week ended April 24.

The U. S. Bureau of Mines figures show that gasoline stocks for the country as a whole at the end of Feburary represented 77 days' supply at the February rate of domestic demand, and that stocks at the same period in 1924 represented 100 days' supply. Bearing in mind the fact that the 118 refineries referred to represent substantially the Mid-Continent spot market, it can be seen that they are entering the summer without the burden of greatly over hanging stocks.

Natural Gasoline Strong

Probably the most optimistic group in recent weeks are the manufacturers of natural gasoline. They have not only been able to move their current output as produced, but many of them have sold ahead well into May. One of the larger producers and marketers has estimated that material on hand is only about twenty or twenty-five per cent of what it was at this season last year, and another stated that total stocks were only twenty per cent of May 1 of what they were a month ago.

Some manufacturers were forced to buy on the outside this week and last and while some have considered it good business to sell over May at recent higher prices, others are now of the opinion that with the peak of gasoline demand at hand they may be able to sell to better advantage on the spot market. Natural gasoline demand has certainly been highly satisfactory, with a minimum of sales effort required to transact practically all the business manufacturers cared to accept.

Grade A was bringing from 10 to 10¼ cents, Grade B 9¾ cents and Grade C from 9½ to 9¾ cents, and buyers have been forced to do considerable shopping all week to fill their requirements, particularly for the B and C Grades. Grade A has been rather plentiful and prices have not responded as on the others. Grade A has advanced about 1 cent in the last two weeks, but Grade B is around 1¾ cents higher and Grade C has moved up 2½ to 2¾ cents.

High gravity gasolines have remained steady. The 60-62, 400 end point was available to the jobber at around 11½ cents, with a few refiners asking 12¼, and one refiner sold a sizeable quantity

(Continued on page 101)

All prices and market information printed herein have been gathered by the staff of National Petroleum News from reliable sources and so far as can be ascertained thoroughly represent the going market as defined for each product on the date given for those particular prices. Both buyers and sellers have been checked in the gathering of this information and actual sales studied.

These prices and this information are subject at all times to correction for errors. Anyone having knowledge of any facts which would indicate anything different from the information which is given, is especially urged to send in those facts to the head office of National Petroleum News at once, or take them up with the nearest representative. All such facts will be promptly and thoroughly investigated.

The staff of National Petroleum News is cognizant of the fact that this market information has come to have a high standing in the industry. It wants to not only maintain that standing, but to improve it and to that end, invites the co-operation of the entire oil industry.

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Refinery Markets on Light Oils and Lubricants

Pennsylvania, Oklahoma, North and South Texas, Louisiana, Arkansas, California

GASOLINE AND NAPHTHA

PENNSYLVANIA	Prices May 4	Prices Apr. 27	Prices Apr. 20
52-54 Naphtha	12½-12¾	12⅝-12¾	12¾-13
54-56 Naphtha	12¾-13	-13	12¾-13
58-60 Gasoline	13 -13¼	13 -13¼	13¼-13⅜
60-62 Straight-run gasoline	13¾-14¼	13¾-14¼	13¾-14¼
62-64 Straight-run gasoline	14¼-14¾	14¼-14¾	14¼-14¾
64-66 Straight-run gasoline	14½-15	14¾-15	14½-15
68-70 Straight-run gas. 350 E.P.	15¼-15½	15¼-15½	15½-16
68-70 Straight-run gas. 305-320 E.P.	17½-18	17½-18	-18
70-72 Straight-run gas. 300-305 E.P.	-19	-19	-19
OKLAHOMA			
48-50 450 E. P. naphtha	9½-10	9¾-10	9¾-10
50-52 450 E. P. naphtha	9½-10	9¾-10	9¾-10
56-58 450 E. P. gasoline	10 -10¼	9⅞-10	-10¼
58-60 U.S. Motor 437 E.P.	10¼-10½	10¼-10½	10½-10¾
60-62 400 E. P. gasoline	11½-11¾	11½-11¾	11½-11¾
64-66 375 E. P. gasoline	12½-13	12½-13	12⅝-12¾
68-70 350 E. P. gasoline	-13¼	13 -13¼	13 -13¼
NORTH TEXAS			
48-52 450 E. P. naphtha	9½- 9¾	9¾-10	9¾-10
56-58 450 E. P. gasoline	9¾-10	9¾-10	10 -10¼
58-60 450 E. P. gasoline	10 -10¼	-10	-10¼
58-60 U. S. Motor gasoline	10¼-10½	-10¼	10½-10¾
60-62 400 E. P. gasoline	-11½	11¼-11⅝	11⅝-11¾
64-66 390 E. P. gasoline	12¾-13	12¾-13	12¼-12⅝
64-66 375 E. P. gasoline	13 -13¼	13 -13¼	12⅝-12¾
68-70 350 E. P. gasoline	-13½	-13¼	13¼-13⅜
NORTH LOUISIANA			
58-60 450 E. P. gasoline	10½-10¾	10½-10¾	10¼-10½
58-60 437 U. S. Motor gasoline	10¾-11	10¾-11	10½-10¾
64-66 375 E. P. gasoline	-13¼	12¾-13	12¾-13
ARKANSAS			
58-60 450 E. P. gasoline	10½-10¾	10½-10¾	10¾-11
58-60 U. S. Motor gasoline	10¾-11	10¾-11	11 -11¼
64-66 375 E. P. gasoline	13¼-13½	13¼-13½	13 -13¼
CALIFORNIA			
54-56 U. S. Motor gasoline	-11	-11	-11
42-45 Engine distillate, 445-480 E.P.	7½- 9½	7½- 9½	7½- 9½

Note: This is without the 2-cent state tax included in the price of California refiners for shipments within the state.

NEW ENGLAND

(F. O. B. Boston and Fall River)

U. S. Motor gasoline	-13⅜	-13¾	-13¾

NATURAL GASOLINE

OKLAHOMA			
Grade Double A	10 -10¼	-10	9¾-10
Grade A	10 -10¼	-10	9¾-10
Grade Double B	9¾-10	- 9½	- 9
Grade B	9¾-10	- 9½	- 9
Grade C	- 9¾	- 9¼	- 8¼

NOTE—Specifications adopted by Ass'n of Nat. Gaso. Manufacturers:
Grade Double A—80-87.9 gravity, 90% recovery, not over 375 E. P.
Grade A—72-79.9 gravity, 90% recovery, not over 375 E. P.
Grade Double B—84-92 gravity, 85% recovery, not over 375 E. P.
Grade B—76-83.9 gravity, 85% recovery, not over 375 E. P.
Grade C—80-90 gravity, 78% recovery, not over 375 E. P.

NORTH TEXAS			
*Grade Double A	10 -10¼	-10	9¾-10
*Grade A	10 -10¼	-10	9¾-10
*Grade Double B	9¾-10	- 9½	- 9
*Grade B	9¾-10	- 9½	- 9
Grade C	- 9¾	- 9¼	- 3½

*F. O. B. Breckenridge.

CALIFORNIA			
73-78 375 E. P.	12¼-13¼	12¼-13¼	12¼-13¼
OKLAHOMA NATURAL GASOLINE—BLENDS			
64-66 435-440 E. P.	-10	-10	10 -10¼
NORTH TEXAS			
64-66 435-440 E. P.	-10	-10	10¼-10½
PENNSYLVANIA			
68-70 Grav. 437 E. P.	-13	13 -13¼	13¼-13⅜
64-66 Grav. 437 E. P.	-13	13 -13¼	13¼-13⅜
60-62 Grav. 437 E. P.	-13	13 -13¼	13¼-13⅜
68-70 Grav. 420 E. P.	-13½	-14	-14
68-70 Grav. 400 E. P.	-14	14 -14¼	14¼-14⅜

BURNING OILS

PENNSYLVANIA			
45 Water White Kerosene	6¼- 6⅜	6¼- 6½	6½- 6¾
46 Water White Kerosene	6¾- 7	- 7	7¼- 7½
47 Water White Kerosene	7½- 8	7½- 7¾	7¾- 8
300 Burning Oil	- 7½	- 7½	- 7½
OKLAHOMA			
40-42 Prime White Distillate	3⅝- 3¾	3½- 3¾	3½- 3¾
41-43 Water White Kerosene	4⅛- 4¼	4 - 4¼	4¼- 4½
42-44 Water White Kerosene	4¼- 4½	4⅛- 4½	4¼- 4½
NORTH TEXAS			
41-43 Water White Kerosene	- 4	- 4	4 - 4⅛
42-44 Water White Kerosene	4⅛- 4¼	4⅛- 4¼	4⅛- 4¼
NORTH LOUISIANA			
41-43 Water White Kerosene	- 4¾	- 4¾	4⅛- 4¾
ARKANSAS			
41-43 Water White Kerosene	- 4¾	- 4¾	4¾- 5
42-44 Water White Kerosene	4¾- 5	4¾- 5	5 - 5¼
CALIFORNIA			
40-42 Water White Kerosene	7½- 8	7½- 8	7½- 8
NEW ENGLAND			
(F. O. B. Boston and Fall River)			
40-43 Water White Kerosene	- 7	- 7¼	- 7

NEUTRAL OILS

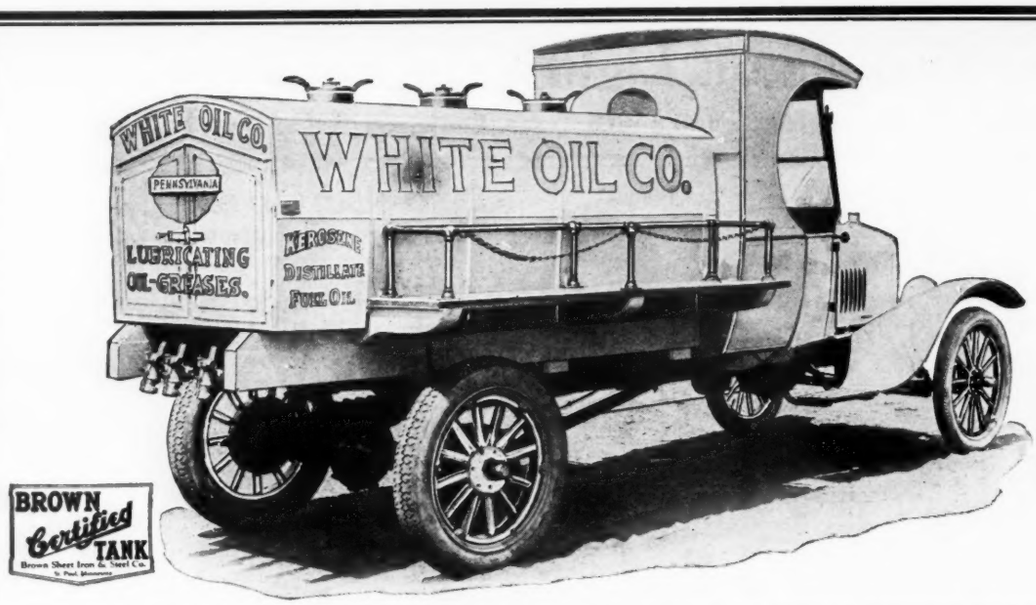
PENNSYLVANIA	Prices May 4	Prices Apr. 27	Prices Apr. 20
(Viscosity at 70 °F.)			
220 Vis. No. 3 Assoc. Filt.	26 -27	26 -27	-25½
200 Vis. No. 3 Assoc. Filt.	22 -23	-23	-23
180 Vis. No. 3 Assoc. Filt.	20 -21	-21	-21
150 Vis. No. 3 Assoc. Filt.	18 -19	18¾-19	-19
(Non-Viscous)			
34 Grav. 350-360 Flash	7¾- 8	7¾- 8	7¾- 8¼
36 Miners Neutrals 300-305 Flash	7¾- 7½	7¾- 7½	7¾- 7½
OKLAHOMA			
(Viscosity at 100 °F.)			
70 Vis. No. 2½-3 color	6 - 6¼	8 - 8½	8 - 8½
100 Vis. No. 2 color	6 - 6¼	7 - 9	7 - 9
100 Vis. No. 2½-3 color	5¾- 7½	7 - 8½	7 - 8½
150 Vis. No. 3 color	10¾-11	10¾-11	10¾-11
150 Vis. No. 4 color	10½-10¾	10½-10¾	10½-10¾
180 Vis. No. 3 color	11¾-11½	11¾-11½	11¾-11½
180 Vis. No. 4 color	11 -11¾	11 -11¾	11 -11¾
180 Vis. No. 5 color	10 -11	10 -11	10 -11
200 Vis. No. 3 color	11½-13	11½-13	11½-13
200 Vis. No. 4 color	12 -12¾	12 -12⅝	12 -12¾
200 Vis. No. 5 color	11 -12	11 -12	11 -12
220 Vis. No. 3 color	14¾-15	14¾-15	14¾-15
220 Vis. No. 4 color	14¼-14¾	14¼-14¾	14¼-14¾
220 Vis. No. 5 color	13 -14	13 -14	13 -14
240 Vis. No. 3 color	16 -16½	16 -16½	16 -16½
240 Vis. No. 4 color	15¾-16	15¾-16	15¾-16
240 Vis. No. 5 color	15 -15½	15 -15½	15 -15½
280 Vis. No. 3 color	17¾-18	17¾-18	17¾-18
280 Vis. No. 4 color	16¾-17	16¾-17	16¾-17
280 Vis. No. 5 color	15¾-16	15¾-16	15¾-16
300 Vis. No. 5-6 color	18 -18½	19¼-19½	19¼-19½
GULF COASTAL			
(Viscosity at 100 °F; cold test 0)			
100 Vis. No. 2 Color Unfilt. Pale	9 - 9½	9 - 9½	9 - 9½
200 Vis. No. 3 Color Unfilt. Pale	13½-14	13½-14	14 -14⅜
300 Vis. No. 3 Color Unfilt. Pale	16 -16½	16 -16⅜	16 -16½
500 Vis. No. 3½ Color Unfilt. Pale	18 -18½	18 -18⅜	18 -18⅜
750 Vis. No. 4 Color Unfilt. Pale	23 -23½	23 -23⅜	23 -23⅜
200 Vis. No. 5½ Color Red Oil	12 -12½	12 -12⅜	12 -12⅜
300 Vis. No. 5½ Color Red Oil	14 -14½	14 -14⅜	14 -14⅜
500 Vis. No. 6 Color Red Oil	16 -16½	16 -16⅜	15¾-16
750 Vis. No. 6 Color Red Oil	20 -21	20 -21	20 -21
CALIFORNIA			
(Viscosity at 100 °F.)			
100 Vis. No. 2 color	13½-14½	13½-14½	13½-14½
100 Vis. No. 3 color	9 -10	9 -10	9 -10
200 Vis. No. 3 color	14½-15½	14½-15½	14½-15½
300 Vis. No. 3 color	14 -16	14 -16	14 -16
450 Vis. No. 3½ color	19½-20½	19½-20⅜	19⅝-20⅝
550 Vis. No. 3 color	21½-22½	21½-22⅜	21½-22⅜
600 Vis. No. 3½ color	23½-24½	23½-24½	23½-24½
100 Vis. No. 5 color	8 - 9	8 - 9	8 - 9
200 Vis. No. 5 color	13½-14½	13½-14½	13½-14½
300 Vis. No. 5 color	14 -15	14 -15	14 -15
400 Vis. No. 5 color	16 -17	16 -17	16 -17
500 Vis. No. 5 color	17 -18	17 -18	17 -18
600 Vis. No. 6 color	18 -19	18 -19	18 -19
700 Vis. No. 7 color	19½-20½	19½-20½	19½-20½

CYLINDER STOCKS

OKLAHOMA			
190-200 Vis. at 210° Bright Stock	31 -36	31 -36	31 -36
150-160 Vis. at 210° Bright Stock	28 -32	28 -32	28 -32
600 E Stock, 140-150 Vis. @ 210°	15 -20	15 -19½	18½-24
600 Steam Refined Olive Green	9 -11	9 -11	11 -12½
600 Steam Refined Dark Green	6½- 8	6½- 8½	7½-10
Black Oil	5¼- 5½	5¼- 5½	5¼- 5½
PENNSYLVANIA			
(1-inch Immersion Test)			
600 Steam Refined	17½-18	-17	-18
635 Steam Refined	23½-24	23 -23½	-24
650 Steam Refined	25 -26	24½-25	-26
600 Flash	28 -29	28 -29	-29
600 Warren E	-24	23½-24	24 -24⅜
600 Oil City E	-23	22½-23	23 -23⅜
600 Filtered D	-29	28½-29	28⅜-29
Cold Test Stocks (bright filtered)	37 -38	37 -39	37 -39
Cold Test Stock (dark filtered)	35 -36	35 -36	35 -36
Black Oil	8 - 8½	7½- 8	7½- 8

(Note—Prices of total immersion test goods average 1 to 2 cents per gallon higher.)

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.



Truck Tanks on the Square

Perhaps you would prefer the square or semi-rectangular type. Square, oval or round, Brown Tanks are Certified Oil Tight.

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LICENSED MANUFACTURERS OF VAN TILBURG RECTIFYING PROCESS

PENNSYLVANIA-PETROLEUM-PRODUCTS-PURE
TRADE MARK CORECO ESTABLISHED 1885

Guaranteed 100% PURE PENNSYLVANIA OIL

The highest grade oil in the worl
Permit No. 35

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100% **OIL** 100%

Just What You Must Have

ONE FAIR TRIAL of CORECO will PROVE THAT CORECO MOTOR OILS MERIT the demand of the consumer who uses only the most efficient, dependable and the best lubricating oils. To the JOBBER a revelation. YOU will double your profits. WHY? The price low—specifications high. We can make anything you want. Write, wire or telephone your order.

CONTINENTAL REFINING CO., Oil City, Pa.

Refinery Markets on Wax and Heavy Oil Products

Pennsylvania, Oklahoma, North and South Texas, Louisiana, Arkansas, California

WAX

PENNSYLVANIA	Prices May 4	Prices Apr. 27	Prices Apr. 20
	(Per Pound New York)		
122-124 White Crude Scale.	5 – 5⅛	– 5	– 5
124-126 White Crude Scale.	5⅛– 5¼	5 – 5⅛	5 – 5⅛
OKLAHOMA			
	(Per Pound Group 3)		
124-126 White Crude Scale.	– 4¾	– 4¾	– 4¾
CALIFORNIA			
White Crude Scale.....	7½– 8	7½– 8	7½– 8

FUEL OIL

PENNSYLVANIA			
36-40 Fuel Oil.....	5¼– 5⅜	– 5¼	– 5¼
30-34 Fuel Oil.....	– 5	– 5	5 – 5¼
28-30 Fuel Oil.....	– 4⅞	4⅞– 5	– 5
OKLAHOMA			
38-40 Straw distillate.....	3⅛– 3¼	3⅛– 3¼	– 3¼
36-38 Straw distillate.....	3 – 3⅛	– 3⅛	3⅛– 3¼
32-36 Gas oil.....	2¾– 3	2⅞– 3	2⅞– 3⅛
26-30 Fuel oil (Bbl.).....	.97½–1.00	1.02½–1.05	1.07½–1.10
24-26 Fuel oil (Bbl.).....	.90 – .95	.95 –1.00	1.02½–1.05
24-26 Fuel oil (Buyers' cars)	.90 – .95	.95 –1.00	1.02½–1.05
20-22 Fuel oil (Bbl.).....	.90 – .92½	– .95	1.00 –1.02½
50-60 Asphaltic content road oil.....	–1.25	–1.25	1.25 –1.30

NORTH TEXAS	Prices May 4	Prices Apr. 27	Prices Apr. 20
36-40 Straw Distillate.....	3⅛– 3¼	3⅛– 3¼	3¼– 3⅜
32-36 Gas Oil (Gal.).....	2⅞– 3	2⅞– 3	– 3
24-26 Fuel, per bbl.....	– .90	.95 – .97½	1.10 –1.15
GULF COASTAL			
Fuel.....	1.70 –1.80	1.70 –1.80	1.75 –1.80
Gas Oil.....	5¼– 5½	5¼– 5¼	5¼– 5¼
NORTH LOUISIANA			
32-36 Light Gas Oil (Gal.)	3¼– 3½	3¼– 3½	– 3½
20-24 Fuel Oil (Bbl.).....	.85 – .90	90 – 95	1.00 –1.05
ARKANSAS			
32-36 Gas Oil.....	3¼– 3⅜	3¼– 3⅜	3¼– 3½
18-22 Refinery Fuel Oil (Bbl.).....			1.00–1.05
Smackover fuel (processed)	.75 – .80	.75– .80	.90– .95
Road Oil.....	– 3½	– 3½	– 3½
CALIFORNIA*			
14-18 Fuel Oil (Bbl.).....	1.60	1.60	1.60
14-18 Bunker Oil (Bbl.)...	1.60	1.60	1.60
24-30 Gas Oil (Bbl.).....	1.85	1.85	1.85
27 + Diesel Oil (Bbl.)....	1.85	1.85	1.85
NEW ENGLAND			
	(F. O. B. Boston and Fall River)		
30-32 gas oil (gal.).....	– 5¾	– 5⅞	– 6
Fuel Oil (Bunker C) bbl...	–1.82	–1.90	–1.95

*Prices at southern California points. Prices at San Francisco 5c per bbl. higher.

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

(Continued from page 97)

to a domestic user at a price understood to have been 11½ cents. The 64-66, 375 end point was offered at 12½ cents upward, with several refiners demanding 13 cents for this grade with export specifications.

Kerosene has been steady and the 41-43 water white has moved to the jobber at around 4¼ cents, with some refiners making sales at 4½ cents. The trade was paying around 4½ cents for the 42-44 water white, but one refiner who was receiving 4½ cents for 41-43 reported movement of his current output of 42-44 at 5 cents and said he was sold up at that price.

Gas oil was quiet and some refiners were willing to move the 32-36 gravity to marketers at 2¾ cents for prompt or future shipment. Others were asking 3 cents from the trade, but sales above 2⅞ cents did not appear to be freely made. One refiner whose location gave him an advantage in shipping to a nearby cracking plant said he was offered 3⅞ cents for his gas oil.

Fuel Oil Prices Slip

Fuel oil prices have gradually moved downward and buyers anticipating a soft fuel market this summer have continued their purchases largely for prompt shipment only. Little low gravity material was known to be available at below 90 cents, but refiners found difficulty in securing 95 cents, and 24-26 gravity was moving on spot sales at from 90 to 95 cents. Some refiners were asking higher prices, with sales of odd cars, but marketers found considerable material at 90 cents.

Lubricating oils were generally unchanged, with some refiners reporting slow movement of cylinder stocks. Cosden & Co. sold 200,000 gallons of high viscosity E Bright stock for export shipment at a reported price of 31 cents, Group 3. Wax continued firm, and while some business was transacted at 4½ cents, most sales were made at 4¾ cents, with refiners demanding this price or higher for futures.

Gasoline Slightly Firmer May 1; All Fuel Oils Quiet

Staff Special

CHICAGO, May 2

CONSIDERING how slow the markets have been over the last week, prices have held up remarkably well. U. S. Motor gasoline is selling at 10¼ to 10½ cents now as it was a week ago, but there was a sag in the meantime to a point where 10¼ was a good price. That weakening occurred in the last two or three days of April when the carload marketers here and in Tulsa were unloading material bought long over the month. On Friday the price firmed again.

Part of the strength of gasoline currently is due to a temporary shortage of tank cars. Large export orders of gasoline are being moved toward Gulf ports from Oklahoma which is not the ordinary course of shipment. The result is that few cars subject to diversion are moving northeastward from Group 3 and spot cars in transit demand a slight premium. On account of the volume of high gravity material bought for export those gasolines have held their price in the face of lighter domestic demand which is normal for the season.

For the first time in several weeks the resale agencies in Chicago are looking for an upward turn in the market. Part of this optimism is due to facts which came to light incidental to the monthly Greenslade purchase. Usually, toward the end of every month, the Greenslade Oil Co. of Detroit opens sealed bids for the sale of one or more train loads of U. S. Motor. This competitive bidding gives the company the bottom price and is watched closely because of its size. It shows the "low down" on the market at the most bearish time of the month.

Early this week Greenslade came into the market. Although considerable gasoline could be had at 10 cents in the spot market on Wednesday and Thursday, none could be had at that price for shipment over May. In fact refiners refuse to sell their goods at 10¼ for over May shipment. As a consequence, it is said, the Greenslade order was reduced one half.

Some oil men says Greenslade officials were wise in postponing purchases; they think the company will still get its material at 10¼ cents this month. Refiners differ with that opinion. They smile and say they hope no friend of theirs has sold 50 car loads short at 10¼ cents.

Lubricating oils have been fairly active.

Kerosene is steady at 4⅛ to 4¼ cents which is a slight decline from last week's quotations. Refined oil also reached a low point in the middle of the week, and could be purchased readily at 4 cents, but the sunshine that came with

the first day of May revived the hopes of oil jobbers in farming districts.

Light oil fuels are right where they stood last week in price and demand. A range of 2⅞ to 3⅜ cents will cover the market on both gas oil and stove distillate. Certain grades of both products are moving at 3 cents a gallon to trade that is anything but enthusiastic.

Refinery fuel oil is a little weaker now than last week. The going price now is 95 cents to $1 a barrel and not very active. The falling off in the fuel oil price is believed by some to be due at least in part to conditions in Smackover. This theory is strengthened by the fact that Smackover prices are up slightly. Processed Smackover crude fuel is firm at 80 cents and moving as high as 85.

About a week ago, due to the flush production in Smackover, a considerable amount of unprocessed crude fuel came on the Chicago market. It was not the same material that first came out of that field under the name of crude fuel, because the newer oil is guaranteed to contain less than 2 per cent of B. S. and water. But it is nevertheless raw crude from earthen storage and could be had at first for 70 cents and less. That material is scarcer now and expected to disappear from the market soon.

Kerosene movement was slow and some sales for northern shipments were made at 3⅞ cents, although the majority of refiners were holding the 41-43 water white at 4 cents, particularly for shipment locally. Distillates were quiet and 38-40 straw material was offered at from 3 to 3¼ cents.

One export shipment of gas oil at 2⅞ cents was made this week, but domestic buyers were offered the 32-36 gravity at 2¾ cents with some sales at 2⅞ cents. Fuel oil orders were slow and prices are weaker. On Monday 24-26 gravity was well around 95 cents to $1 per barrel at Wichita Falls, but the price declined around 5 cents, with odd lots moving below 90 cents.

Refiners generally are showing little interest in spot crude oil and premiums are low.

Pennsylvania Cylinder Stocks Show Stronger Tendency

CLEVELAND, May 4.—Buying up of what threatened to be surplus cylinder stocks has strengthened the market for these oils in the northwestern Pennsylvania refinery markets. Distress cylinder stocks seemed to have been cleared from the market today and refiners were asking an average of ½ cent more than during most of last week.

So far as can be learned there have been no really large orders placed in the Pennsylvania market but a considerable amount of small orders has firmed a weak situation. The buying evidently was done by domestic interests as the New York export lube market lacks strength and has been receding gradually.

Viscous neutrals appear a little easier. Demand is not heavy in proportion to other products and prices have slipped back. Several of the larger refiners are still sold up on their neutrals production and are quoting up to 23½ cents for 200 viscosity No. 3 color. Others are offering this grade as low as 22 cents.

Gasoline movement is good and prices have been steady. Kerosene lacks strength and demand has not been heavy, viewing the Pennsylvania field as a whole. Fuel oil also has been quiet.

Paraffin was has been firm with an advancing tendency.

Kentucky

U. S. Motor gasoline is ½ cent cheaper than a week ago and 68-70 is unchanged. Intermediate grades are stronger. Demand continues good. Kerosene, gas oil and fuel oil are unchanged at 7½, 5, and 4 cents, respectively. Gasoline quotations in central Kentucky today were: 58-60, 12½ cents; 60-62, 13½; 64-66, 14½, and 68-70, 15 cents.

Benzol Demand Increasing

NEW YORK, May 4.—Consumption of motor benzol is soaring. Local jobbers report increasing difficulty in securing supplies, as leading marketers have all they can do in taking care of their standing contracts. The little benzol that was available for spot delivery was quoted at 22 cents a gallon, in tank cars at the ovens.

Motor fuel mixture manufacturers report the usual increase in the demand for their products. Contract prices for benzol, have been fluctuating with gasoline, but buyers are finding increasing difficulty in placing new contracts.

There has been a more active export inquiry, but domestic producers feel that this outlet is too uncertain and are inclined to confine their sales to domestic consumers, assuring a regular movement.

Motor Gasoline Prices Softer in Texas

WICHITA FALLS, May 2.—Gasoline buying has been below the amount necessary to absorb all material offered and as a result prices on lower gravities have shown some decline this week. U. S. Motor was available at from 10 to 10¼ cents, but over most of the week marketers and jobbers were taking only small amounts.

However, at the end of the week a few marketers were offering to purchase at 10 cents, as they were unable to find material in Group 3 below 10¼ cents, but very little Motor gasoline was to be had below 10⅛ cents Saturday, and some refiners were quoting the jobber 10½ cents. The 56-58, 450 end point grade was moving at from 9½ to 9¾ cents, and the 58-60, 450 end point at around 9¾ to 10 cents.

Higher gravities continued firm and little of any grade was offered by refiners. The 60-62, 400 end point is scarce with prices ranging from 11¼ to 11½ cents. Refiners were demanding a minimum of 13 cents for 64-66, 375 end point.

Natural gasoline is well sold up and prices have continued to advance. All grades appeared fully as firm as in the Group 3 market.

Gulf Coastal Lubes Slow

HOUSTON, May 2.—Spot Gulf Coastal lubricants are slow because of the season, this time being between the periods of active buying of these oils.

Week's Price Changes Tank Wagon Market

Gasoline Changes

Standard of New York.—S.s. price at Augusta, Me., has been 24 cents, and at Manchester, N. H. 26 cents, a half cent reduction at the former point, and half cent advance at the latter, for about six weeks. Prices are corrected in this issue.

Standard of Indiana.—Minnesota and Kansas t.w. and s.s. prices advanced 2 cents covering state gasoline taxes, May 1.

New Jobber Makes Progress

RICHMOND, VA., April 30.—James River Oil Co., Inc., the youngest petroleum jobber of Richmond, is making good headway according to George S. Hewitt, manager. The company's gasoline gallonage for its first year in business exceeded 2,000,000 gallons and prospects for the present year are even brighter, Mr. Hewitt says.

The company operates 25 service stations and serves as many dealers with gasoline, kerosene and motor oils. Pure Oil Co.'s products are handled exclusively.

Oil Business Good in Miami

MIAMI, FLA.—B. E. Baumann, retail station manager of Shaw Bros., gasoline distributors of this city, says that Miami oil and gasoline men report better business this year to date than any previous year. There has been practically no falling off in business as yet, while in previous years after the tourist season was over, a decided slump resulted.

Tank Wagon, Service Station Markets for Gasoline and Kerosene
in United States Territories and Canada

BELOW are given in cents a gallon, the tank wagon price of gasoline without the special taxes levied against motor fuels by many states, the amount of the state taxes, the total tank wagon price, with tax added in and the service station or retail price of gasoline as quoted by the Standard Oil Companies in their various marketing territories. The right hand column is the tank wagon price of kerosene. By tank wagon price is meant the price to resale agents or dealers.

These prices in Effect May 4, 1925

S. O. NEW JERSEY TERRITORY

	Gasoline T.W.	Tax	Total	S.S.	Oil T.W.
Atlantic City, N. J.	17	0	17	*	12.5
Newark, N. J.	17	0	17	19	12.5
Annapolis, Md.	18	2	20	*	12
Baltimore, Md.	17	2	19	21	11
Cumberland, Md.	18	2	20	22	12
Washington, D. C.	17	2	19	21	12
Danville, Va.	18	3	21	*	13
Norfolk, Va.	18	3	21	23	13
Richmond, Va.	18	3	21	23	13
Roanoke, Va.	18	3	21	23	13
Petersburg, Va.	18	3	21	*	13
Charleston, W. Va.	17	2	19	21	13
Clarksburg, W. Va.	18	2	20	22	13
Keyser, W. Va.	18	2	20	*	13
Parkersburg, W. Va.	17	2	19	21	13
Wheeling, W. Va.	17	2	19	21	13
Williamsburg, W. Va.	18	2	20	*	13
Charlotte, N. C.	18	4	22	24	14
Hickory, N. C.	18	4	22	*	14
High Point, N. C.	18	4	22	*	14
Mt. Airy, N. C.	18	4	22	*	14
Salisbury, N. C.	18	4	22	*	14
Charleston, S. C.	18.5	5	23.5	25.5	14.5
Columbia, S. C.	18.5	5	23.5	25.5	14.5

*Dealers set own prices. S. O. New Jersey does not operate station.

S. O. NEW YORK

*New York City	20	0	20	22	13
Albany, N. Y.	20	0	20	22	13
Buffalo, N. Y.	20	0	20	23	13
Rochester, N. Y.	†20	0	†20	†24	13
Syracuse, N. Y.	20	0	20	22	12
Boston, Mass.	20	0	20	24	11
Augusta, Me.	20	1	21	24	13
Manchester, N. H.	20	2	22	26	13
Burlington, Vt.	20	2	22	25.5	13

*In steel barrels.

†At Rochester only, as far as is known, Standard sells two grades of gasoline, the above price applying to its Socony grade, and another grade being sold 2c below this price.

ATLANTIC REFINING

Pittsburgh, Pa.	19	0	19	*24	14
Philadelphia, Pa.	19	0	19	*24	14
Allentown, Pa.	19	0	19	*24	14
Erie, Pa.	19	0	19	*24	14
Scranton, Pa.	19	0	19	*24	14
Altoona, Pa.	19	0	19	*24	14
Dover, Del.	19	2	21	24	14
Wilmington, Del.	19	2	21	24	14
Providence, R. I.	20	0	20	24	13
Springfield, Mass.	20	0	20	24	13
Worcester, Mass.	20	0	20	24	13
Hartford, Conn.	20	1	21	25	12
New Haven, Conn.	20	1	21	25	13
Boston, Mass.	20	0	20	24	11

*Contains 2-cent tax collected by retail dealer and paid by him directly to state.

S. O. KENTUCKY

Lexington, Ky.	18	3	21	24	14
Louisville, Ky.	18	3	21	24	12
Covington, Ky.	17	3	20	23	14
Clarksdale, Miss.	18	3	21	24	12
Jackson, Miss.	18	3	21	24	10
Natchez, Miss.	17.5	3	20.5	23.5	11.5
Vicksburg, Miss.	17.5	3	20.5	23.5	11.5
Birmingham, Ala.	19	2	21	24	14.5
Mobile, Ala.	18	2	20	23	12.5
Montgomery, Ala*	20	2	22	25	15.5
Atlanta, Ga.	20	3	23	26	13
Augusta, Ga.	20	3	23	26	13
Macon, Ga.	20	3	23	26	14.5
Savannah, Ga.	18	3	21	24	13
Jacksonville, Fla.	18	3	21	24	13
Miami, Fla.	20	3	23	26	14.5
Tampa, Fla.	18	3	21	24	13
Pensacola, Fla.	18	3	21	24	13.5

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

S. O. INDIANA

	Gasoline T.W.	Tax	Total	S.S.	Oil T.W.
Chicago, Ill.	†18	0	†18	20	12
Decatur, Ill.	18.2	0	18.2	20.2	12.5
E. St. Louis, Ill.	17.1	0	17.1	19.35	11.6
Joliet, Ill.	18.4	0	18.4	20.4	12.7
Peoria, Ill.	18.2	0	18.2	20.2	12.5
Quincy, Ill.	18.2	0	18.2	20.2	12.3
Indianapolis, Ind.	18.2	3	21.2	23.2	12.7
Evansville, Ind.	18	3	21	23	12.5
South Bend, Ind.	18.4	3	21.4	23.4	12.9
Detroit, Mich.	18.8	2	20.8	22.8	13.2
Grand Rapids, Mich.	18.7	2	20.7	22.7	13.1
Saginaw, Mich.	18.9	2	20.9	22.9	13.3
Madison, Wis.	18.3	2	20.3	22.3	12.5
Milwaukee, Wis.	18.1	2	20.1	22.1	12.3
La Crosse, Wis.	19.2	2	21.2	23.2	13.4
Minneapolis, Minn.	19.2	2	21.2	23.2	13.6
Duluth, Minn.	19.5	2	21.5	23.5	13.6
Mankato, Minn.	19.1	2	21.1	23.1	13.4
Des Moines, Iowa	18.5	2	20.5	22.5	12.9
Davenport, Iowa	18.5	2	20.5	22.5	12.9
Sioux City, Iowa	18	2	20	22	12.5
Mason City, Ia.	18.5	2	20.5	22.5	12.9
St. Louis, Mo.	**17.6	2	19.6	21.9	12
Kansas City, Mo.	††18.9	2	20.9	22.9	11.3
St. Joseph, Mo.	**18	2	20	22	11.9
Fargo, N. D.	19.9	1	20.9	22.9	15.6
Grand Forks, N. D.	20.1	1	21.1	23.1	15.9
Minot, N. D.	20.9	1	21.9	23.9	15.6
Pierre, S. D.	20	3	23	*	14.1
Huron, S. D.	15	3	18	20	14.1
Wichita, Kans.	17.8	2	19.8	21.8	11.8
Bartlesville, Okla.	16.9	3	19.9	21.9	10.9

†Dumps of 100 or more gallons at 17c per gallon.
*S. O. Indiana does not operate station
**Includes city tax of ½c.
††Includes city tax of 1c.

S. O. NEBRASKA

Crawford, Neb.	19	2	21	*	13.25
Omaha, Neb.	16	2	18	20	12.5
McCook	19.75	2	21.75	23.75	14
Norfolk	18.75	2	20.75	22.75	13
North Platte	19.75	2	21.75	23.75	13.75
Scotts Bluff	19.25	2	21.25	23.25	13.25

*Standard has no service station here.

CONTINENTAL OIL

Denver, Colo.	19	2	21	23	14.5
Pueblo, Colo.	19	2	21	23	14.5
Casper, Wyo.	19	2½	21.5	23.5	13
Cheyenne, Wyo.	20.5	2½	23	25	14.5
Butte, Mont.	21	2	23	23	16
Helena, Mont.	23	2	25	27	17
Salt Lake City, Utah	20.5	3½	24	26	18
Boise, Ida.	21.5	3	24.5	26.5	20
Albuquerque, N. M.	23.5	3	26.5	29.5	16.5

S. O. CALIFORNIA

Phoenix, Ariz.	20	3	23	26	21.5
Los Angeles, Cal.	13.5	2	15.5	18.5	15.5
Fresno, Cal.	15.5	2	17.5	20.5	17.5
San Francisco, Cal.	15	2	17	20	15.5
Reno, Nev.	18.5	4	22.5	25.5	19
Portland, Ore.	15	3	18	21	16.5
Seattle, Wash.	15	2	17	20	16.5
Spokane, Wash.	19	2	21	24	20.5
Tacoma, Wash.	15	2	17	20	16.5

S. O. LOUISIANA

Camden, Ark.	17	4	21	23	12
Little Rock, Ark.	17	4	21	23	10
West Helena, Ark.	17	4	21	23	11
Alexandria, La.	16.5	2	18.5	20.5	12
Baton Rouge, La.	15	2	17	19	10.5
Lake Charles, La.	16.5	2	18.5	20.5	12
New Orleans, La.	16.5	2	18.5	20.5	11
Shreveport, La.	16.5	2	18.5	20.5	11
Bristol, Tenn.	18	3	21	23	12.5
Chattanooga, Tenn.	17.5	3	20.5	22.5	13.5
Knoxville, Tenn.	18.5	3	21.5	23.5	14
Nashville, Tenn.	17.5	3	20.5	22.5	12.5
Memphis, Tenn.	16	3	19	21	13

S. O. OHIO

	Gasoline T.W	Tax	Total	S.S.	Oil T.W.
All Ohio points	18.5	2	20.5	22.5	13

MAGNOLIA PETROLEUM

Muskogee, Okla.	15.5	3	18.5	21.5	12
Oklahoma City	16.5	3	19.5	22.5	12
Tulsa, Okla.	15.5	3	18.5	21.5	11
Fort Smith, Ark.	17	4	21	24	12
Little Rock, Ark.	17	4	21	23	10
Texarkana, Ark.	18	4	22	25	12
Dallas, Tex.	16	1	17	21	12
El Paso, Tex.	17	1	18	21	13
Fort Worth, Tex.	16	1	17	21	12
Houston, Tex.	16	1	17	21	12
San Antonio, Tex.	14	1	15	18	12

*Within city of Texarkana, Ark., the state tax on gasoline is 1c per gal. conforming with the Texas state tax. In Texarkana district outside of the city, the 4c state tax applies.

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline)

	V.M.&P. Naphtha	Oleum Spirits
Chicago	21	19
Detroit	22.7	20.2
Milwaukee	21.7	19.2
Minneapolis	23	20.5
St. Louis	20.9	18.4
New York	19½	....
Cleveland	19	....

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)
Prices in effect May 4, 1925

ONTARIO

	Gasoline T.W.	Tax	Total	S.S.*	Oil T.W.
Toronto	23.5	0	23.5	27	20
Ottawa	24.5	0	24.5	28	21
Cochrane	28.5	0	28.5	32	24.5
Ft. William	26.5	0	26.5	30	22.5
MANITOBA					
Winnipeg	26.5	3	29.5	33	22.5
SASKATCHEWAN					
Regina	29.5	0	29.5	33	25.5
ALBERTA					
Edmonton	31.5	2	33.5	37	27.5
Calgary	30.5	2	32.5	36	26.5
BRITISH COLUMBIA					
Vancouver	21	3	24	28	23
QUEBEC					
Montreal	23.5	3	26.5	30	20
Quebec City	25.5	3	28.5	32	22
NEW BRUNSWICK					
St. John	26.5	0	26.5	30	20
Moncton	26.5	0	26.5	30	22
NOVA SCOTIA					
Halifax	26.5	0	26.5	30	23
Sydney	28.5	0	28.5	32	25
PRINCE EDWARD ISLAND					
Charlottetown	26.5	2	28.5	30	23

Note: In districts surrounding these points 1c additional is added to city price.

Complete Export Markets

New York **Gulf Coast** **California**

Export Gasoline Inquiries Increase at New York, But Buying Drags

By Special Correspondent

NEW YORK, May 4

FOUR export inquiries for mixed cargoes of gasoline and kerosene were disclosed in local circles last week, but there was a fairly wide variance between, buyers' and refiners' ideas which tended to retard business. One leading independent is reported to have sold a cargo of 42,000 barrels of U. S. Motor; 64 gravity and prime and water white kerosene, for June shipment to the United Kingdom but details are lacking.

A leading Independent was working on a similar cargo for May-June shipment to France but this is still hanging fire. Gasoline was weak with local jobbers buying hand-to-mouth. U. S. Motor was offered freely at 12½ cents while 12 cents could have been done in several directions. The price in tank cars delivered to the trade was 13¼ to 13½ cents a gallon.

Talk of an impending cut in the New York tank wagon market has tended to discourage export buying, as many of the agents with foreign connections look for a cut in export prices should the tank wagon price be reduced.

One of the smaller dealers has closed an order for 700 drums of gasoline for May shipment to Asia Minor and 8000 cases of kerosene for May shipment to the Levant. There was an inquiry in the market from South America, presumably Argentine for 20,000 cases of gasoline and 8000 cases of kerosene for may shipment, but this did not materialize. A Chinese buyer was in the market for 15,000 cases of kerosene, May shipment, this is still pending. There is a fairly steady consignment movement going on.

The Standard Oil Co. of New Jersey announced a cut of 5 cents a barrel in bunker oil on Thursday bringing the price of this oil down to $1.75 a barrel F. O. B. refinery. The other large refiners met this reduction. Demand for bunker oil has been falling steadily and there is talk of further reductions soon. Diesel oil is still quoted at $2.30 a barrel but the market is weak, and the movement is largely against contracts.

Waxes were firmer, and all grades were up from ⅛ to ¼ cents a pound, reflecting a marked improvement in the demand. Both United Kingdom and Continental buyers entered the market in a larger way than for several weeks back. Demand from the United Kingdom was something of a surprise, and three orders were reported calling for 25, 30 and 35 tons of white crude scale wax. On Saturday 122-124 A. M. P. was held at 5 to 5⅛ cents a pound while 124-126 was steady at 5⅛ to 5¼ cents. The movement in refined waxes was routine. Fully refined, 120-122 A. M. P. was firmer at 5⅞ cents while 122-124 A. M. P. was held at 6 cents. Match waxes were quiet and nominally unchanged.

There was an order in the market for 500 barrels of Pennsylvania 600 s.r. in barrels New York, for May shipment to France, and it is understood that one of the smaller independents closed this. The price was not made known but offerings were reported at from 24½ to 25½ cents a gallon, or about ¾ cent lower for the week. The movement in spindle oil was light, and spasmodic. Demand for paraffin oil has improved a little. There was an inquiry for a cargo of 22,000 barrels May-June shipment, assorted lubricants. The prospective buyer has German connections.

Kerosene was a flat affair. Export movement was mainly on consignment and contract. Water white was freely offered in bulk at 7 cents a gallon, refinery, while prime white was quoted at 6½ cents a gallon. No bulk sales were heard of other than that mentioned in conjunction with gasoline. Domestic demand is lagging and apparently foreign consumers are content with covering their immediate requirements.

Gas oil was easier although unchanged. No export sales of importance developed while no inquiries worth mentioning were heard of. For 36-40 at the local refineries the asking price was 5¾ cents a gallon. Stocks are in excess of the demand, and some observers look for a cut soon.

Petrolatums were very quiet and unchanged. There have been several small inquiries from the United Kingdom but demand has been hand-to-mouth. The medicinal oils are dull but steady. Domestic distribution is declining.

Gasoline More Active at New Orleans; All Burning Oils Are Weak

NEW ORLEANS May 4.—Although export demand was more active than during the preceding week, virtually all of the major petroleum products were lower, reflecting the trend in the Mid-Continent. One of the leading independents closed a sale of 50,000 barrels of gasoline and kerosene for late May-early June shipment to the United Kingdom at 11¾ cents for U. S. Motor; 14¾ cents for 64-66; 6½ cents for water white kerosene and 5¼ cents for prime white.

There was an inquiry in the market for 70,000 barrels of gasoline and kerosene, May-June shipment to the United Kingdom, but the buyer's ideas were ½ cent a gallon below refiners gasoline prices, while kerosene was also quoted ¼ cent too high for the buyer. The asking price for 60-62-400 e. p., bulk was 13 cents a gallon. A French buyer was in the market during the early part of the week for a mixed cargo of 45,000 barrels for June shipment, and reports current had it that a leading refiner closed this sale at the same prices as those mentioned above but confirmation was lacking. A leading independent was working on a mixed cargo of 42,000 barrels for 2nd half May-1st half June shipment to France but this is still pending.

One of the large independents is loading a cargo of 80,000 cases of gasoline and kerosene, for immediate shipment to the Far East but refused to divulge the destination. Cased U. S. Motor is quoted at $2.50 a case, in cargo lots but rumor has it that this price can be shaded a trifle. A large Japanese buyer was inquiring for 50,000 cases of gasoline and kerosene mixed for June shipment, but as far as could be learned the order was not placed. The demand from South America has been very disappointing the past week. No sales of consequence were disclosed. There is a steady, although light movement to the West Coast of Africa and the Near East.

Prime white kerosene was softer. Stocks are large and refiners are more

N. Y. Domestic Market

The following light oil, gas and fuel oil prices are F. O. B. New York refineries, being products made from Domestic (including California) and Mexican Crudes.

	May 4	Apr. 27
U. S. Motor Gasoline, Tank Cars Delivered	-13¼	-13½
U. S. Motor Gasoline, Tank Cars Bayonne	12¾-12½	12½-13
Kerosene, 45-150 W. W. Tank, Cars Del'd	-.08	-.08¼
Grade C Bunker, f.o.b. N.Y.	1.75	1.80
Diesel Oil f.o.b Refinery	2.30	2.30
Gas Oil, 36-40, Bulk, Refinery	-05¾	-05¾
Gas Oil, 28-34	-05¼	-05¼

inclined to make concessions to stimulate the demand. On Saturday 5¼ cents was asked a decline of ½ cent from the preceding Saturday. Water white was steady and unchanged at 6½ cents a gallon. No straight bulk sales of kerosene were reported. Stocks on the Continent are rather depleted, but are capable of taking care of nearby needs, and there is a steady movement against contracts placed about a month ago. Cased kerosene was dull although there was inquiry from the Far East, presumably from China for 35,000 cases for May-June shipment.

Bunker oil was weak, and all of the leading factors were quoting grade C at $1.55 a barrel f. o. b. with indications that a firm bid might have shaded this price. Mexican crude oil is nominal. Bunker oil at Tampico including taxes was quoted at $1.50 a barrel. There was no export buying reported, and demand from domestic consumers was disappointing.

Gas oil was also softer and 32 plus dark was offered freely at 5 cents a gallon while 26-28 transparent ranged from 5¼ to 5½ cents a gallon. There was an inquiry from the Continent for 28,000 barrels but the buyer was interested at about ¼ cent below the inside prices. The United Kingdom buyers are showing very little interest in gas oil.

Zero cold test lubricating oils were lower. Early in the week one of the large refiners cut the price for virtually all grades ½ cent a gallon. Other leading factors met this reduction but feel that the cut was sharper than warranted. There was an inquiry in the market for a cargo of 30,000 barrels of assorted lubricants for May-June shipment to France but this did not materialize.

Reflecting the marked improvement in the export demand, and the advances in the New York market, most grades of paraffin wax were raised from ⅛ to ¼ cent a pound. Spanish buyers have been purchasing white crude scale in a larger way and one sale was reported of 25 tons for May-June shipment but the price was not made known.

Pacific Export Market

(Cargo lots quotations at seaboard, Los Angeles.)

	May 4	Apr. 27
Gasoline, U. S. Motor—54°—56°	10½-11⅛	10½-11⅛
Gasoline—U. S. Motor blends and special cuts.	11⅛-12⅛	11 -12⅛
Gas Oil, 24°—30°B per bbl	$1.85	$1.85
Diesel Oil, 27°B-plus per bbl	$1.85	$1.85
Bunker Oil,14°—18°B per bbl	$1.60	$1.60
Fuel Oil,14°—18°B per bbl	$1.60	$1.60
Kerosene, W.W.40°—42° B per gal.,125-150 flash test	05 -06½	05 -06½
Cased Goods		
Gasoline, U. S. Motor	$2.70	$2.70
Kerosene, W.W.40°—42° B per case, flash test 125-150	$1.55-1.65	$1.55-1.65

New York Export Market

Prices below are averages of actual sales by local exporting Agencies

GASOLINE	May 4	Apr. 27
U. S. Motor, Bulk, Ref.	-12¼	12½-13
KEROSENE		
45-150 W. W. Bulk Ref.	-07	-07¼
GAS OIL		
36-40, Bulk Ref.	-5¼	-05¾
28-34, Bulk Ref.	-5½	-05⅝
BUNKER OIL		
Grade C, Ref.	1.75	-1.80
Diesel Oil Ref.	2.30	-2.30
LUBRICATING OILS		

The following prices are cooperage basis f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS BBLS.				
Penna. Filtered D 600		-34		-34
Penna. Filtered E 600	$1	-32	$1	-32
Unfiltered 600 s. r.	24½-25½		25½-26½	
Unfiltered 650 s. r.		-31	32½-33¾	
600 flash s. r.		-39		-39
Western 600 s. r.	14½-15½		13	-14
Bloomless 30-31 grav.		-25		-25
RED PARAFFIN (bbls.)				
300 vis. at 100°F.	24	-25	24	-25
250 vis. at 100°F.		-23		-23
175 vis. at 100°F.		-23		-23
High Viscosity Paraffin		-31		-31
.885 s. g. pale 100 vis. at 100°F	14½-15		14½-15	
SPINDLE (bbls.)				
200 vis. at 100°F. Pale		-25¼		-25¼
180 Pale		-23½		-23¼
150 Pale		-21		-21
BLACK OIL (bbls.)				
25-30 cold test	14	-15½	14	-15⅛
15 cold test	15	-15½	15	-15⅛

MEDICINAL OILS (Cooperage Basis) (Penna. Stocks)	May 4	Apr. 27
Domestic.875-.885s.g.drums	1.00-1.08	1.00-1.08
Domestic.865-.870s.g.drums	75 -80	75- 80
Russian.885-.890s.g.325-330 vis. drums	1.25	1.25
WAXES (Penna. Stocks) (F. A. S. Carload Lots)		
WHITE CRUDE SCALE		
122-124 A. m. p.	05¾	-04¾
124-126 A. m. p.	05¼	-04⅞
MATCH		
105-108 A. m. p.	nominal	nominal
111-115 A. m. p.	nominal	nominal
FULLY REFINED		
120-122 A. m. p.	-05⅞	-05¾
123-125 A. m. p.	-06	-05⅞
125-127 A. m. p.	-06⅛	-06⅛
128-130 A. m. p.	-06⅛	06⅛-06½
130-132 A. m. p.	-06½	-06⅝
133-135 A. m. p.	-07¼	-07¼
SEMI REFINED		
122-124 A. m. p.	-05¾	-04¾
YELLOW CRUDE SCALE		
124-126 A. m. p.	-05	-04⅝
PETROLATUMS (Penna. Stocks)		
Dark Green	02¾	02¾
Veterinary	03¾	03¾
Light Amber	03¾	03¾
Dark Amber	03¾	03¾
Cream	07¼	07¼
Lily White	10	10
Snow White	12½	12½

N. Y. Export Quotations

Furnished by big exporting oil companies. No actual sales. Record for statistical purposes only.

Illuminating Oils
Standard Oil of New Jersey

	May 4	Apr. 27
Bulk, gal., Bayonne	6.50	6.50
Barrels, gal., Bayonne, cargo	13.50	13.50
Cases, gal., Bayonne	16.90	16.90

Prices for water white oil (150 test) are 1 cent higher than those for standard white.

Gasoline-Naphtha
(Cents per Gallon)

U. S. Motor, dead bulk	15.00	15.00
U. S. Motor, cases	29.15	29.15
Export Naphtha bulk	17.75	17.75
*62-63 deg. bulk	19.00	19.00
66-68 deg. bulk	20.50	20.50

*Grade changed from 64-66 to 62-63 Jan. 9.

Tide Water Oil Company
(f. o. b. Bayonne)

58-59 deg. bulk	16.00	16.00
58-59 deg. cases	29.65	29.65
Export grade, U. S. Motor Specifications bulk	15.00	15.00
63-65 deg. bulk	19.00	19.00
68-72 deg. bulk	21.50	21.50

	Bulk Barrels	Cases
Standard white 110	6.50 13.50	16.90
Water white 150	7.50 14.50	17.90

The Texas Company

Gasoline, cases	29.15	29.15

Kerosene	Bulk Barrels	Cases
Standard White	6.50 13.50	16.90
Prime White	7.00 14.00	17.40
Water White	7.50 14.50	17.90

Gulf Export Market

(Actual Sales Prices)

Gasoline	May 4	Apr. 27
U. S. Motor, Bulk	-.11¾	-.12
60-62 gr. 400 c. p.	-.13	-.13½
64-66, Bulk	-.14¾ 15	-.15¾
U. S. Motor, Cases (cargo lots)	2.50	2.40
64-66. Cases (cargo lots)	2.75	2.55
KEROSENE		
Water White, bulk	-.06½	-.06½
Prime White, bulk	-.05¼	-.05¾
Water White, cases (cargo lots)	1.70	1.70
Prime White, cases (cargo lots)	1.60	1.60
GAS AND BUNKER OIL		
26-28, gravity, bulk	-05¼	-05½
32 plus, bulk. Dark	-05	-05¼
Grade C, Bunker oil	-1.55	-1.55
MEXICAN CRUDE AND BUNKER OILS		
*Heavy, f.o.b.Tampico, Taxes to be added	nominal	1.40
Mexican Grade C.Bunker oil F. O. B. Tampico Taxes paid	1.50	1.65
Mexican C, Bunker oil New Orleans	1.55	1.70

Lubricating Oils

SOUTH TEXAS
(Viscosity at 100°F; cold test 0)
(Tanker, F. O. B. Houston)

	May 4	Apr. 27
100 Vis. No. 2 Unfilt. Pale	8½	9
150 Vis. No. 2½ Unfilt. Pale	10½	11
200 Vis. No. 3 Unfilt. Pale	13	13½
300 Vis. No. 3 Unfilt. Pale	16	16½
500 Vis. No. 3½ Unfilt. Pale	18	18½
200 Vis. No. 5½ Red Oil	11½	12
300 Vis. No. 5½ Red Oil	14	14½
500 Vis. No. 6 Red Oil	16	16½
750 Vis. No. 6 Red Oil	20	21

*Nominal

California Gasoline Soft

LOS ANGELES, May 1.—The California refined oil market is soft. Gasoline marketers are experiencing keen competition and trusting that the seasonal increase in demand will arrive before heavy losses overtake them. There are 131,000,000 barrels of crude oil in storage as compared with about 97,000,000 barrels a year ago.

An influence on the domestic gasoline trade is the large and increasing output of casinghead gasoline. The output in March was nearly 18,000,000 gallons in southern California, an increase of 2,500,000 gallons over February. This large output coupled with the fact that one of the largest buyers in the market quit making purchases has disturbed the stability of the trade considerably.

British Importations

During the week ended April 13, petroleum importations into the United Kingdom amounted to only 5,266,079 imperial gallons. Larger receipts were:

Consignee	Imperial Gallons	Product	Port of Origin
At London—			
Anglo-Amer.....	765,050	Fuel Oil	Sabine
Anglo-Amer.....	576,517	Kerosene	Constanza
Lubricant Prod..	665,665	Lubes	P. Mexico
Vacuum Oil.....	432,818	Lubes	New York
Anglo-Mex.....	236,000	Fuel Oil	Tampico
Lubricating and Fuel Oils.....	769,200	Fuel Oil	Phila.
At Manchester—			
Anglo-Amer.....	1,258,580	Gasoline	Avondale

During the week ended April 4 19,693,914 gallons of petroleum were imported. Larger receipts were:

Consignee	Imperial Gallons	Product	Port of Origin
At London—			
Russian Oil Prod.	227,061	Crude	Baytown
Russian Oil Prod.	1,345,862	Benzine	Baytown
Shell.....	1,161,253	Benzine	Rangoon
Brit. Pet. Co....	1,856,250	Gasoline	Trinidad
Anglo-Amer.....	702,863	Lubes	Richmond
At Liverpool—			
Anglo-Amer.....	720,000	Lubes	Richmond
At Barrow—			
Anglo-Amer.....	1,574,530	Benzine	Avondale
At Hull—			
Anglo-Amer.....	2,431,500	Gasoline	P. Arthur
At Manchester—			
Anglo-Mex.....	1,899,800	Fuel Oil	Tampico
Anglo-Amer.....	1,502,910	Gasoline	Paulsboro
Anglo-Amer.....	537,250	Gas Oil	Baytown
Anglo-Amer.....	545,829	Lubes	Baytown
At Southampton—			
Brit.-Mex.....	2,394,744	Crude	Amba Is.
At Glasgow—			
Brit.-Mex.....	2,522,600	Fuel Oil	Tampico

Petroleum imports into Great Britain during four weeks ended March 23 totaled 136,000,000 imperial gallons, 20,000,000 greater than corresponding period of 1924 and 20,000,000 above average four weeks' total in 1923. Of the total 52,000,000 gallons or about 40 per cent came from the United States. The United States supplied 31,248,291 gallons of the 53,146,278 gallons of gasoline imported.

GAINESVILLE, FLA.—W. R. Thomas, filling station operator, has just completed a new service station at Archer, Fla., located on route 5, which is the short route down the west coast of Florida to Tampa.

Crude Oil Prices All Fields

EASTERN FIELDS

	1925 May 4	1924 High	1924 Low	1923 High	1923 Low
Bradford Allegany	$3.40	Jan.30..$4.50	Aug.21..$2.85	Feb.15..$4.25	Nov.13..$2.60
Gaines	3.15	Jan.30.. 4.00	Aug.5... 2.75	Feb.15.. 4.00	Nov.13.. 2.35
Other Penna	3.30				
West Virginia	3.25				
Penna. grade in Ohio	3.15				
Cabell	2.05	Mar.10.. 2.20	Jan.1and Aug.5. 1.45	Feb.15.. 2.76	Nov.13.. 1.20
Corning	1.95	Mar.10.. 2.15	Jan.1... 1.40	Feb.15.. 2.30	Nov.14.. 1.25
Somerset	2.15	Mar.10.. 2.30	Jan.1... 1.40	Feb.15.. 2.55	Nov.13.. 1.15
Somerset Light	2.30	Mar.10.. 2.50	Jan.1... 1.55	Feb.15.. 2.80	Nov.13.. 1.30
Ragland	1.30	Mar.10.. 1.10	Jan.1... .85	Feb.15.. 1.10	July 10.. .75

Somerset oil run prior to Oct. 1, 1923, takes price of 6 cents lower than above quotations.

CENTRAL STATES FIELDS

Wooster	$2.15	Mar.8...$2.15	Jan.1,and Sept.18 $1.40	Feb.19..$2.50	Nov.9...$1.25
Lima	2.23	Mar.8... 2.28	Jan.1... 1.53	Feb.19.. 2.58	Nov.9... 1.43
Indiana	2.03	Mar.8... 2.08	Jan.1... 1.33	Feb.19.. 2.38	Nov.9... 1.23
Princeton	2.02	Mar.8... 2.07	Jan.1... 1.32	Feb.19.. 2.37	Nov.8... 1.22
Illinois	2.02	Mar.8... 2.07	Jan.1... 1.32	Feb.19.. 2.37	Nov.8... 1.22
Plymouth	1.55	Mar.8... 1.45	Jan.1... .70	Feb.19.. 1.75	Nov.9... .60
Canadian Petrolia	2.63	Mar.8... 2.68	Jan.1... 1.93	Feb.19.. 2.98	Nov.9... 1.83

MID-CONTINENT AND NORTH TEXAS FIELDS

Below 30	$1.35	Currie	$2.00
30-32.9	1.55	Mexia	2.00
33-35.9	1.80	Powell	2.00
36-38.9	2.00		
39-41.9	2.25		
42 and above	2.35		

Humble's Prices
Moran Field Texas

Below 30	$1.35	36 and above	$2.00
30-32.9	1.55	Wortham	2.00
33-35.9	1.80	Richland	2.00

Magnolia's Price Schedule
North and North-Central Texas, Okla., and Kan.

Below 28	$1.00	Corsicana, light, Powell, Mexia	$2.00
28-30.9	1.35	Corsicana, heavy	1.00
31-32.9	1.55	Thrall	1.00
33-35.9	1.80	*Magnolia pays $2 and $2.25 respectively for these two grades in Okla. and Kan.	
*36-38.9	1.95		
*39-41.9	2.10		
42 and above	2.35		

NORTH LOUISIANA—ARKANSAS FIELDS

Caddo, 38 degrees and above	$2.05	do 32 to 34.9	1.55
do 35 to 37.9	1.95	De Soto	1.90
do 32 to 34.9	1.85	Crichton	1.70
do below 32	1.70	Bellevue	1.75
Homer, 35 and above	1.80	Smackover 27 and above	1.30
do 33 to 34.9	1.70	do 26-26.9	1.25
do 31 to 32.9	1.60	do 25-25.9	1.20
do below 31	1.45	do 24-24.9	1.10
Haynesville, 33 and above	1.70	do above 24	40
do below 33	1.60	Stephens 26 and above	1.45
El Dorado 33 and above	1.70	do below 26	1.25
do below 33	1.60	Cotton Valley	1.00
Bull Bayou, 38 and above	1.85		
do 35 to 37.9	1.70		

GULF COASTAL FIELDS

	1925 May 4	1924 High	1924 Low	1923 High	1923 Low
Spindletop	$1.75	Apr.1...$2.00	Jan.1 and Sept.17.....$1.25	Mar.15..$1.75	Aug.18..$1.00
Goose Creek "A"	1.75	Apr.1...$2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Goose Creek "B"	1.50	Apr.1... 1.70	Sept.17..... 1.05	Mar.15.. 1.50	Aug.18.. 1.00
Sour Lake	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Humble	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Hull "A"	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Hull "B"	1.50	Apr.1... 1.70	Jan.1 and Sept.17..... 1.00	Mar.15.. 1.30	Jan.1... .80
West Columbia	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Edgerly	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Vinton	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Jennings	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Saratoga	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25	Mar.15.. 1.75	Aug.18.. 1.00
Orange "A"	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25		
Orange "B"	1.50	Apr.1... 1.70	Jan.1 and Sept.17..... 1.00		
Pierce Junction "A"	1.75	Apr.1... 2.00	Jan.1 and Sept.17..... 1.25		
Pierce Junction "B"	1.50	Apr.1... 1.70	Jan.1 and Sept.17..... 1.00		

WYOMING FIELDS

Elk Basin	$2.15	Mar.10..$1.65	Jan.1...$ .95	Feb.17..$2.10	Nov.9...$ .95
Grass Creek	2.15	Mar.10.. 1.95	Jan.1... .95	Feb.17.. 2.10	Nov.9... .95
Big Muddy	2.00	Mar.10.. 1.50	Jan. 1... .45	Feb.17.. 1.65	Nov.9... .45
Salt Creek	1.60	Mar.10.. 1.60	Jan.1... .60	Feb.17.. 1.65	Nov.9... .60
Lance Creek	2.15	Mar.10.. 1.90	Jan.1... .90	Feb.17.. 2.10	Nov.9... .80
Rock Creek	2.00	Mar.10.. 1.70	Jan.1... .60	Feb.17.. 1.75	Nov.9... .60
Osage	2.15	Mar.10.. 1.90	Jan.1... .90	Feb.17.. 2.10	Nov.9... .80
Cat Creek, Mont	2.15	Mar.10.. 1.95	Jan.1... .95	Feb.17.. 2.10	Nov.9... .95
Sunburst, Mont	1.20	Mar.10.. 1.05	Jan.1.... 70	Feb.17.. 1.50	June 6.. .70

CALIFORNIA

14-19.9	$1.25	25-25.9	$1.44	30-30.9	$1.64
20-20.9	1.27	26-26.9	1.48	31-31.9	1.68
21-21.9	1.30	27-27.9	1.52	32-32.9	1.72
22-22.9	1.33	28-28.9	1.56	33-33.9	1.76
23-23.9	1.36	29-29.9	1.60	34-34.9	1.80
24-24.9	1.40			35 and above	1.85

ROSECRANS FIELD

36-36.9	$1.99
and for each increase of one full degree above 36° gravity, up to and including 41.9° gravity, 8 cents per barrel additional	
2 and above	$2.40

California Gasoline Output Gains; Stocks Decrease

SAN FRANCISCO, May 2.—Gasoline production in California during March increased 1,585,769 gallons to 118,002,212 gallons over February, showing a daily average of 3,806,523 gallons, according to statistics of 42 refineries reporting to the U. S. Bureau of Mines, operating at 74.9 per cent of their capacity during March. This was an increase of 5,767,389 gallons over March, 1924. Stocks of gasoline decreased 12,235,770 gallons under February, and on March 31 amounted to 329,308,084 gallons. Of the gasoline produced, 102,299,111 gallons from straight run, 2,394,884 gallons from cracking, and 13,308,217 gallons from natural-gas gasoline.

Kerosene production totaled 23,629,991 gallons, an increase of 1,299,845 gallons over February. Stocks on March 31 were 57,216,571 gallons, an increase of 1,602,408 gallons over February.

Gas and fuel oil output totaled 400,484,228 gallons, showing an increase of 67,640,786 gallons over February. Stocks on March 31 were 845,766,038 gallons, a gain of 2,533,430 gallons over February.

Lubricants production during March was 10,006,845 gallons, an increase of 2,204,111 gallons over February and stocks increased 1,406,483 gallons, amounting to 23,438,610 gallons on March 31.

BRADFORD, PA., May 1.—J. B. McMillin has opened a marketing business at 61 Main St., Bradford, under the name J. B. McMillin Co. Mr. McMillin has been in the oil business for 12 years and formerly was sales manager of the Bradford Gasoline Co.

Cargoes Clearing From N.Y.

Date	Destination	Product	Quantity
Apr. 17	Dunkirk	Min. Oil	925 bbls.
Apr. 15	Iloilo, P. I.	Ref. Pet.	110,000 cases
Apr. 15	Cebu, P. I.	Lubes	2,060 cases
Apr. 15	Kobe, Japan	Lubes	280 bbls.
Apr. 20	Casablanca	Naphtha	5,000 cases
Apr. 20	Tangier	Naphtha	2,000 cases
Apr. 17	Sydney	Lubes	1,950 bbls.
Apr. 17	Geelong	Kerosene	51,250 cases
Apr. 17	Geelong	Gasoline	31,850 cases
Apr. 11	Sibalgo, D. E. I.	Ref. Pet.	39,500 cases
Apr. 16	Algoa Bay	Ref. Pet.	3,000 cases
Apr. 16	Algoa Bay	Naphtha	2,000 cases
Apr. 16	Delagoa Bay	Ref. Pet.	8,500 cases
Apr. 16	Delagoa Bay	Naphtha	6,250 cases
Apr. 16	Capetown	Naphtha	2,500 cases
Apr. 16	Capetown	Ref. Pet.	9,500 cases
Apr. 16	Funchal (Madeira)	Naphtha	1,000 cases
Apr. 16	Teneriffe, C. I.	Ref. Pet.	500 cases
Apr. 16	Teneriffe, C. I.	Naphtha	500 cases
Apr. 16	Las Palmas, C. I.	Ref. Pet.	1,500 cases
Apr. 16	Las Palmas, C. I.	Naphtha	500 cases
Apr. 16	Dakar (Afr.)	Naphtha	7,450 cases
Apr. 16	Freetown (Afr.)	Ref. Pet.	1,000 cases
Apr. 16	Accra (Afr.)	Naphtha	1,000 cases
Apr. 16	Accra (Afr.)	Ref. Pet.	1,000 cases
Apr. 16	Lagos	Naphtha	1,000 cases
Apr. 16	Port Harcourt (Afr.)	Ref. Pet.	6,000 cases
Apr. 16	Port Harcourt (Afr.)	Naphtha	3,500 cases
Apr. 16	Victoria (Afr.)	Ref. Pet.	1,000 cases
Apr. 16	Victoria (Afr.)	Naphtha	800 cases
Apr. 16	Calabar	Ref. Pet.	3,000 cases
Apr. 16	Fernando Poo (Afr.)	Ref. Pet.	14,000 cases
Apr. 16	Matadi (Afr.)	Ref. Pet.	7,000 cases
Apr. 16	Matadi (Afr.)	Naphtha	5,750 cases
Apr. 16	Lobito Bay (Afr.)	Ref. Pet.	1,000 cases
Apr. 16	Lobito Bay (Afr.)	Naphtha	2,000 cases

Refiners', Compounders' Supplies

Following are the average market prices for the week on materials used by refiners and compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

		May 4	Apr. 27
Soda Ash light 58% bags	cwt.	-$1.38	-$1.38
Silicate of Soda 60 deg. drums	cwt.	- 1.70	- 1.70
Sal Soda wks	cwt.	1.10- 1.25	1.10- 1.25
Caustic Soda 76% solid	cwt.	- 3.10	- 3.10
Chloride of Lime works	cwt.	1.80- 1.90	1.90- 2.10
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point	per ton	9.50-11.00	9.50-11.00

Compounders' Supplies (Open Market)

Vegetable Oils—			
Linseed carloads spot	gal.	- 1.03	- 1.04
May-August		- 1.03	- 1.04
Tanks, spot		- .97	- .98
Less carload spot	gal.	- 1.06	- 1.07
Less than 5 bbls. spot		- 1.08	- 1.09
Boiled tank spot		- 1.00	- 1.01
Boiled, carloads spot	gal.	- 1.06	- 1.07
*Soya Bean spot, tanks	lb.	- .12	- .12
Animal Oils—			
English Degras	lb.	-.04¾	-.04¾
Domestic Degras, bbls., carloads	lb.	-.04¼	-.04¼
*Horse	lb.	-.09½	-.09½
Oleic Acid—			
Dist Bbls	lb.	-.11¾	-.11¾
Saponified, Bbls	lb.	-.11¼	-.11¼
Lard Oils—			
Prime Winter Strained.. 1 to 1½ ffa. 40‡45c.t.	lb.	.19	.19½
Extra Winter Strained.. 2 to 4½ ffa. 40/45c.t.	lb.	.18¾	.18¾
Extra..... 4 to 5 ffa. 40/45c.t.	lb.	.15¼	.15½
Extra No. 1. 7 to 10 ffa. 40/50c.t.	lb.	.13¼	.13½
No. 1.....15 to 18 ffa. 40/45c.t.	lb.	.12¾	.13
No. 2.....22 to 25 ffa. 40/45c.t.	lb.	.12¼	.12½
Prime Edible Tallow under 1½ ffa. 40/45c.t. N. Y.	lb.	-.10¾	-.10½
Tallow acidless	lb.	-.15¾	-.15¾
Lard Stearine	lb.	-.19	-.19
Oleo Stearine	lb.	-.12¾	-.12¼
Neatsfoot Oil—			
Pure	bbls.-lb.	.14½	.14¾
Extra	do lb.	.15¼	.13½
No. 1	do lb.	.12¾	.13
Cold pressed	lb.	.17¾	.17¾
Fish Oils—			
Menhaden Oil Light pressed	gal.	-.78	-.78
White	gal.	-.83	-.83
Yellow bleached	gal.	-.81	-.81
*Herring tank cars coast	gal.	-.40	-.40
Whale, extra winter bleached	gal.	-.84	-.84
Seal	gal.		Nominal
Naval Stores—			
Turpentine, N. Y.	gal.	.97	.96
Turpentine†	gal.	.90	.91
Rosin, B. N. Y.	Bbl.	8.45	7.90
Rosin F. N. Y.	Bbl.	9.40	8.90
Rosin B†	Bbl.	6.85	6.40
Rosin F†	Bbl.	8.00	7.40
Rosin Oil 1st run	gal.	.51	.48
Rosin Oil 2nd run	gal.	.56	.51
Pine Tar—			
Kiln Burnt	Bbl.	14.00	14.00
Retort	Bbl.	14.00	14.00

†Savannah, Ga. market.
*Nominal.

Sulfuric Acid Active; Caustic Soda Steady

NEW YORK, May 4.—Following is a review of the market for oils and supplies used in compounding and refining:

Bleaching powder—Demand slightly better. Steady. Stocks moderate. Better inquiry for forward deliveries.

Caustic soda—Contract withdrawals smaller. Many producers sold up to end of the year. Prices steady. Foreign inquiries numerous.

Soda ash—Demand less active. Prices unchanged. Steady shipments against contracts keeping stocks from accumulating.

Sulfuric acid—Active and firmer. Demand more spirited than expected and sellers more reluctant to offer heavily.

Animal oils—Slightly easier. Buyers of oleo stearine inclined to hold off. Degras flat. Prime lard in better demand. Pure neatsfoot steady but quiet. Tallow oil marking time. Oleic acid flat, but steady.

Fish oils—Quiet. Crude menhaden still 55 to 60 cents, gallon, tanks, factory. More interest in light pressed menhaden at 78 cents a gallon. Whale oil moving more freely.

Linseed oil—Demand slightly better but many big buyers holding off pending President's decision on flaxseed tariff. Stocks of oil slightly larger. Heavy contract withdrawals keeping crushers busy. Spot buying very light. Boiled oil moving more freely.

Naval stores—Quiet. Turpentine inquiry more active but most of the buying hand-to-mouth. Little interest shown by export buyers. Rosins steadier. Consumption gaining and demand is rapidly increasing. Rosin oils steady under routine demand. Tar and pitch quiet; unchanged.

Mild Weather Promised For Early May

CHICAGO, May 3.—Temperatures will be normal or above all this week according to the weather forecast issued by the Chicago weather bureau office Saturday. The prediction applies to all of the Standard Oil Co. of Indiana territory. In the region of the Great Lakes there will be showers early and again late in the week. In the upper Mississippi river valley as well as the Missouri and Ohio River valleys a short period of scattered showers may be expected about the middle of the week.

More than 1 inch of rain fell last week in the lower Mississippi river valley. Most of it was in Standard Oil Co. of Louisiana territory, but one hard rain fell in Texas. Such rains as fell in the eastern half of the country occurred almost every day but were not hard. Temperatures last week were below normal two or three times in the middle west and resulted in less gasoline consumption.

Sinclair Expresses Confidence He'll Win Teapot Dome Lease Suit

Staff Special

CLEVELAND, May 2.

GROSS earnings of the Sinclair Consolidated Oil Corp. in 1924 were $123,894,049, an increase of $16,000,000 or 15 per cent over the 1923 gross. Net after interest and discounts was $390,000 more than 1923. After depreciation, depletion and amortization reserves there was a deficit of $2,149,267, compared with a deficit of $1,289,049 in 1923. In 1922 the corporation had net profits of $14,761,743, which after preferred stock dividends was equivalent to $3.24 a share on the outstanding common stock.

Confidence that with improved conditions this year the corporation's earnings will be larger, is expressed by Harry F. Sinclair, chairman, in a statement to shareholders. Concerning the Teapot Dome lease suit, Mr. Sinclair said:

"The suit instituted by the government against the Mammoth Oil Co., in which your corporation has a stock interest was tried at Cheyenne, Wyo., in the latter part of March. When subjected to the cold scrutiny of a court of chancery the inflammatory accusations so widely advertised were shown to be of the most flimsy character. The questions of law involved are now under the consideration of the court, and there is confidently expected an affirmation of the validity of the lease and the acquittance of the false charges that have been so loosely made."

Operations Are Reviewed

In connection with the annual financial report, the company issued a handsome booklet containing many pictures of the corporation's domestic and foreign producing properties, and refining and marketing plants. The company's 1924 operations were summarized in it and comparisons made of operations last year with those of 1916, the year the corporation was organized. Excerpts from the review follow:

"The proposed entry into the eastern markets of the United States was effected during the latter part of 1924. The Marcus Hook refinery began operating April 1, 1925, thus completing the original.

"The corporation's current supply of raw material, drawn from more than 11,000 wells, consists of (1) crude oil produced by subsidiary companies, (2) crude oil bought from other producers, and (3) crude oil bought from the Sinclair Crude Oil Purchasing Co., in which company the corporation has a 50 per cent. interest.

"The corporation's policy is to restrict its oil field development insofar as circumstances will permit, to protective drilling, when oil can be purchased more cheaply than it can be produced.

"During 1916 the net crude oil production of subsidiary companies was 4,023,281 barrels, all of which was produced in the United States.

Produces 16,017,157 Barrels

"During 1924 the net crude oil production was 16,017,157 barrels, of which 6,175,325 barrels were produced in the United States. These figures are exclusive of royalty and partnership oil.

"The corporation's domestic production is much more settled now than in 1916 as is clearly shown by the fact that its number of producing wells has been increased from 532 to 2103 on Dec. 31, 1924.

"The corporation's Mexica pipe line, which started operations in 1920, delivered 12,960,000 barrels of crude oil through its terminals last year. Total exports from Mexico during 1924 were 15,533,000 barrels.

"Your corporation is fortified as to its supply of raw material not only by a supply of settled crude oil production, which it controls, but also by its interest in the Sinclair Crude Oil Purchasing Co., organized in 1921. This company purchased during 1924 approximately 27,000,000 barrels of crude oil and resold approximately 25,000,000 barrels. Its accumulated storage on Dec. 31, 1924, exceeded 42,000,000 barrels.

"Within the United States, in addition to more than 32,000 acres of producing oil lands, the corporation has more than 200,000 acres of selected leases. In Mexico the holdings of producing and prospective oil lands and leases comprise more than 400,000 acres.

Pipe Line Grows Rapidly

The growth of what is now embraced in the Sinclair Pipe Line Co.'s system is shown by the following comparisons:

Date	Main Line Pump Stations	Miles Trunk and Gathering Lines
May, 1916 6		487
Feb. 1921 38		3005
Dec. 1924 70		5724

"Deliveries of crude oil through this system have increased as follows:

1916 (eight months) ...	3,713,000 barrels
1920 ...	12,503,000 barrels
1924 ...	25,956,000 barrels

(Continued on page 110)

Consolidated balance sheets of Sinclair Consolidated Oil Corp. as of Dec. 31 the last five years follow:

	1924	1923	1922	1921	1920
Gross earnings, misc. income	$123,894,049	$107,592,665	$131,016,745	$122,529,187	$166,648,931
Expenses	107,467,119	94,156,161	100,072,952	111,743,875	131,068,516
Net income	$ 16,426,930	$ 13,436,504	$ 30,943,793	$ 10,785,312	$ 35,580,415
Interest, discounts, etc	6,036,137	3,435,880	4,435,809	5,633,756	5,192,198
Balance	$ 10,390,793	$ 10,000,624	$ 26,507,984	$ 5,151,556	$ 30,388,217
Deprec., deplet., amort	12,540,060	11,289,673	11,746,241	12,038,334	10,962,257
Deficit	$ 2,149,267	$ 1,289,049	*$14,761,743	$ 6,886,778	$ 19,425,960
Preferred dividends	1,512,990	1,571,172	204,381	21,232	9,908
Common dividends	4,486,385	8,970,999	4,329,094	.....	.....
Deficit	$ 8,148,632	$ 11,831,220	*$10,228,268	$ 6,908,010	*$19,416,052

*Surplus

Consolidated balance sheets of Sinclair Consolidated Oil Corp. as of Dec. 31 compare:

	1924	1923	1922	1921	1920
ASSETS					
Real estate, plant, leases, pipe lines, etc	$314,284,384	$291,052,553	$253,094,583	$243,555,676	$261,970,870
Investments	60,035,238	63,737,573	48,457,539	30,637,745	9,834,443
Insurance funds	1,511,002	2,235,050	2,036,307	220,855	405,008
Cash	6,174,807	7,999,607	29,458,558	6,232,640	12,823,280
Accounts, notes rec	11,028,921	9,585,387	11,925,775	28,738,362	18,626,533
Employes stock subs	920,118	979,951	.....	.....	.....
Inventories	24,304,688	23,564,717	25,382,957	22,244,868	47,099,157
Advance payments, oil etc	419,325	810,513	.....	.....	.....
Marketable securities	† 3,763,522	4,219,580	3,608,045	8,759,149	1,236,658
Deferred charges	8,905,158	8,180,869	5,265,694	2,034,258	2,510,891
Total	$431,347,163	$412,365,800	$379,229,458	$342,423,553	$354,506,840
LIABILITIES					
Common Stock*	$204,052,441	$204,052,441	$204,052,440	$193,018,441	$192,230,605
Surplus	10,876,327	19,349,795	30,904,178	27,114,190	34,624,229
Preferred stock	18,541,100	19,278,600	20,000,000	322,400	247,700
Minority int. in subs	109,790	109,990	110,090	110,090	114,400
Deprec. deplet., amort. res	85,148,177	70,690,881	60,578,467	50,464,882	46,490,104
Funded debt	93,307,500	73,973,000	50,000,000	45,441,600	47,504,000
Purchase money oblig	2,998,787	4,514,074	4,855,074	4,736,952	4,814,644
Oil, gas certificates	.....	.....	.....	1,114,139	1,394,585
Notes payable	3,600,000	11,600,000	.....	11,075,000	14,352,316
Accounts payable	9,878,378	6,522,924	6,740,970	5,801,455	7,013,683
Accruals, etc	2,834,662	2,274,095	1,988,289	2,286,908	4,629,993
Suspended earnings, unadj. cr	.....	.....	.....	935,496	1,090,581
Total	$431,347,163	$412,365,800	$379,229,458	$342,423,553	$354,506,840

*Represented by 4,491,892 shares of no par common stock.
†Includes $1,124,137 bonds and stocks of Sinclair Oil Corp. at cost.

Transactions In Oil Shares on New York Stock Exchange

1924 High	1924 Low	1925 High	1925 Low	Listed Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended May 2 Sales	First	High	Low	Last	Ch'ge
48	25	66¼	48	(sh) 200,000	N.P.	American Republics	.....	.....	100	49	49	49	49	—6
54⅝	27½	39½	32	$ 56,000,000	$25	Associated Oil	37½cQ	Apr. 25, 25	16,900	35	36¾	34⅞	36½	+1½
140⅜	78½	117½	95½	50,000,000	100	Atlantic Refining	.....	June 16, 24	1,500	101	105	101	105	0
118	108	115¾	113¼	20,000,000	100	do pfd	$1¾Q	May 1, 25	100	115	115	115	115	+1¼
23½	14	30	21	13,000,000	25	Barnsdall Corp. A	.....	Apr. 30, 21	3,700	22	22¾	21½	22	0
17½	10	23	16¼	3,713,270	25	do B	.....	Apr. 30, 21	500	16¼	17½	16¼	17½	+ ½
4¼	1	2¾	½	(sh) 150,000	N.P.	Caddo Central O. & R	.....	.....	500	¾	¾	† ½	⅝	+ ⅛
29¼	19½	32⅞	23⅞	$ 17,377,000	$25	California Petroleum	43¾cQ	Mar. 2, 25	19,600	28½	30	28¼	29¾	+1
107	92½	116⅜	100	11,955,100	100	do pfd	$1¾Q	Apr. 1, 25	100	113	113	113	113	— ⅞
63⅜	51¾	63¾	42½	19,832,000	100	General Asphalt Co	.....	.....	10,700	48½	51⅜	47⅝	51⅜	+2¾
100	71½	100	86½	7,416,000	100	do pfd	$1¾Q	Mar. 2, 25	500	91⅝	91⅜	91	91	+ ½
45	38⅜	57⅜	42	28,866,650	25	General Petroleum	50cQ	Mar. 16, 25	27,500	50½	52	49¼	51⅞	+1⅝
82½	61	85	59	25,000,000	100	Houston Oil Co	.....	.....	4,400	60⅜	61⅞	59	60½	+ ½
16¼	5¾	33½	13½	(sh) 450,000	N.P.	Independent Oil & Gas	25cQ	Mar. 31, 25	56,700	23¼	26¼	23¼	25½	+1⅜
7⅛	3¼	10⅜	5½	$ 7,830,450	10	Indian Refining Co	.....	Dec. 15, 20	1,800	7¾	8⅜	7¾	8⅜	+ ¼
75	60	95	77	2,296,400	100	do pfd	.....	Dec. 15, 21	.....	.....	.....	.....	.....	.....
1	¾	1¼	⅜	1,682,280	$10	Kansas & Gulf Corp	.....	.....	200	⅜	⅜	† ⅜	⅜	0
.....	.....	23¾	14¾	(sh) 996,302	N.P.	Louisiana Oil Refining	.....	.....	16,400	17	17¾	16½	17⅜	0
37½	24⅝	35½	25¼	(sh) 330,000	N.P.	Maracaibo Oil	.....	.....	3,000	26½	26¾	25¾	26¾	+2¼
42	29	46¼	32⅝	(sh) 1,649,566	N.P.	Marland Oil Co	.....	July 1, 23	36,300	36	38¼	35⅝	38	+1½
190	190	250	225	$ 45,942,800	$100	Mexican Petroleum Co	$3Q	Apr. 20, 25	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	12,000,000	$100	do pfd	$2Q	Apr. 20, 25	.....	.....	.....	.....	.....	.....
25¾	14⅜	22¾	11⅜	(sh) 945,989	N.P.	Mexican Seaboard Oil	.....	Nov. 15, 24	4,500	16¼	17⅜	16	17⅜	+1
40¼	22⅝	35⅜	26	(sh) 1,357,800	N.P.	Mid-Continent Petroleum (Cosden)	.....	Aug. 1, 23	22,900	27⅜	29⅜	26¾	29	+1⅞
95	80	90⅜	83	$ 6,998,000	$100	do pfd	$1¾Q	Mar. 2, 25	500	84	87	84	87	+3
6⅞	1	1⅝	⅝	$ 29,800,220	$10	Middle States Oil Corp	.....	July 1, 23	3,900	¾	¾	⅝	¾	0
58¼	45	65¼	52¼	(sh) 3,500,000	N.P.	Pacific Oil Co	$1S.A.	Jan. 20, 25	35,200	55⅛	58½	54⅝	57¾	+2⅝
85	44¾	83⅞	64	$ 48,292,450	$50	Pan American P. & T	$1.50Q	Apr. 20, 25	2,400	72	76¼	71½	75½	+2¾
64⅜	41¾	84½	63¾	89,269,400	50	do Class B	$1.50Q	Apr. 20, 25	88,300	72½	76½	71¾	76¼	+3¾
4⅛	1⅝	5⅝	3	(sh) 198,770	N.P.	Panhandle P. & R	.....	.....	300	3½	3⅞	3½	3⅞	+ ⅜
42½	29	60½	43	$ 3,855,770	$100	do pfd	.....	July 2, 23	.....	.....	.....	.....	.....	.....
42½	28⅛	46⅜	36¼	(sh) 1,849,904	N.P.	Phillips Petroleum	50cQ	Apr. 1, 25	44,300	39½	40⅜	38⅜	40⅛	+1⅜
4¼	1½	3⅝	1¾	$ 29,622,925	$25	Pierce Oil Corp	.....	.....	2,000	1⅞	1⅞	1¾	1¾	— ⅛
36	20	40	25⅜	15,000,000	100	do pfd	.....	Feb. 1, 22	600	31⅛	33½	32	33	— ½
5¾	4⅜	8¼	5¾	(sh) 2,500,000	N.P.	Pierce Petroleum	.....	.....	20,200	6¾	6⅞	6⅜	6½	0
43½	22¾	32⅝	22	$ 11,467,850	50	Producers & Refiners	.....	Sept. 15, 23	1,100	23	24	23	24	+1
47½	42	47⅝	43½	2,845,350	50	do pfd	87½cQ	May 1, 25	100	44½	44½	44½	44½	0
30¼	20	33¾	25⅜	71,499,850	25	Pure Oil Co	37½cQ	Mar. 2, 25	10,300	26⅜	27	25⅞	26½	+ ⅜
105¼	92	106¼	103	13,000,000	100	do 8% pfd	$2Q	Apr. 1, 25	.....	.....	.....	.....	.....	.....
59½	40⅜	57⅜	48¼	(sh) 817,193	13.40	Royal Dutch, N. Y. shares	$3.18½	Aug. 12, 24	8,500	48⅝	50⅛	48¼	50	+ ½
42	33	45¾	40¼	(sh) 113,608	£2	Shell Transport & T	95c	Jan. 24, 25	200	40¼	41¼	40¼	41¼	— ⅜
22½	15¾	28⅜	22½	(sh) 10,000,000	N.P.	Shell Union Oil Corp	25cQ	Mar. 31, 25	9,800	23¼	23⅞	23¼	24⅛	+ ⅜
99½	91½	101½	99½	$ 20,000,000	$100	do pfd	$1½Q	Feb. 15, 25	300	100⅝	101	100⅝	101	— ½
24	10⅜	26¾	19½	7,205,740	10	Simms Petroleum Co	50Q	Jan. 2, 25	12,900	22⅜	23⅝	22¼	23¼	+ ¾
27⅛	15	24⅞	17	(sh) 4,482,225	N.P.	Sinclair Consolidated	.....	May 31, 24	16,600	18½	19½	18¾	19½	+ ⅜
90	75	94½	78¾	$ 18,541,100	$100	do pfd	$2Q	Feb. 16, 25	.....	.....	.....	.....	.....	.....
29	17⅜	30½	21¾	20,856,590	25	Skelly Oil Co	.....	.....	9,500	23⅜	25	23	25	+1½
68½	55½	67¾	56⅜	235,324,250	25	S. O. California	50cQ	Mar. 16, 25	8,700	58⅛	59	58	58⅝	— ⅛
42¼	33	47½	38⅜	507,856,025	25	S. O. New Jersey	25cQ	Mar. 16, 25	15,100	40¾	41⅛	40¾	41⅛	+ ⅛
119⅛	115¾	119	116¾	199,972,900	100	do pfd	$1¾Q	Mar. 16, 25	1,200	117⅞	118	117½	118	+ ⅛
8⅛	2⅜	6⅛	4	(sh) 1,116,268	N.P.	Superior Oil Corp	.....	Dec. 20, 20	2,200	4⅜	4⅜	4	4	— ⅛
45⅜	37¾	49	42¾	$ 164,450,000	$25	The Texas Co	75cQ	Mar. 31, 25	12,200	43⅝	44⅝	43	44⅝	+ ⅜
15¼	8	23⅜	11½	8,380,340	10	Texas Pacific Coal & Oil	.....	June 30, 23	39,300	14	15	13¾	14¾	+ ⅝
151	116¼	152	122	50,442,900	100	Tide Water Oil Co	$1Q	Mar. 31, 25	1,700	133	136¼	130	136¼	+3⅝
6¼	3¾	5½	3⅞	(sh) 3,232,529	N.P.	Transcontinental Oil Co	.....	.....	12,300	4	4⅛	3⅞	4	0
59	35	43⅜	36⅛	$ 40,480,800	$25	Union Oil of California	45cQ	May 10, 25	6,500	36⅛	36¾	†36⅛	36¾	+ ¼
132⅞	94	128¼	118½	18,115,000	$100	Union Tank Car Co	$1¾W	Mar. 2, 25	400	122	123⅞	121½	123⅞	+1⅞
116¾	106¼	116½	113¾	12,000,000	100	do pfd	$1¾Q	Mar. 2, 25	100	116½	*116½	116½	116½	+½
29¾	23⅛	31¾	25¾	(sh) 460,000	N.P.	White Eagle Oil & Ref	50cQ	Apr. 20, 25	800	2	26½	25¾	26½	+ ½

*New High †New Low xEx-Dividend Total Sales 595,400

Standard Oil Stock Traded In New York Curb Market

1924 High	1924 Low	1925 High	1925 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended May 2 Sales	First	High	Low	Last	Ch'ge
18¾	14⅜	26¾	18	£ 3,000,000	£1	Anglo American	45cS.A.	Nov. 15, 24	27,100	25⅜	25¾	24¾	24⅞	—1
4⅞	2	4	2⅜	(sh) 500,000	N.P.	Atlantic Lobos	.....	.....	3,000	2¾	3½	2⅝	3½	+ ¾
16	5	10¾	6⅞	$ 10,000,000	$10	do pfd	.....	.....	100	8	8	8	8	+1
165	155	239	206½	1,000,000	$100	Borne-Scrymser	†$4S.A.	Apr. 15, 24	.....	.....	.....	.....	.....	.....
85½	51	72	60	10,000,000	50	Buckeye Pipe Line	$1Q	Mar. 14, 25	180	61	61	60	60	—2½
52½	47¾	70	48½	3,000,000	25	Chesebrough Mfg. Co	62½cQ	Mar. 31, 25	2,800	58½	66	58½	64½	+5½
115	112	114	110	1,000,000	100	do pfd	$1¾Q	Mar. 31, 25	30	114	114	114	114	+ ½
.....	.....	31⅛	21⅞	30,208,590	$10	Continental Oil (Maine)	25cQ	Mar. 16, 25	38,700	23⅛	25	23	25	+1⅜
20	11¼	15⅜	10½	1,500,000	25	Crescent Pipe Line	.....	Sept. 15, 23	200	11	11	10½	†10½	— ¼
149	110¾	150	132	3,000,000	100	Cumberland Pipe Line	$3Q	Mar. 16, 25	330	144	145	143	143	—1
105	74	96	78	5,000,000	100	Eureka Pipe Line	$1Q	May 1, 25	20	78	78	78	78	0
69¾	52	65	54	16,000,000	100	Galena Signal Oil	$1Q	Mar. 31, 25	75	54	54	54	†54	— ¼
113	100½	105	100	4,000,000	100	do new pfd	$2Q	Mar. 31, 25	50	103	103	103	103	+2½
116	110	111	108	2,000,000	100	do old pfd	$2Q	Mar. 31, 25	120	113	113	113	113	+2
48¾	34½	49⅞	42½	43,750,000	25	Humble Oil & Ref	30cQ	Apr. 1, 25	19,000	47¾	49½	46⅞	49⅜	+2
161	120	154½	127	20,000,000	100	Illinois Pipe Line	$6S.A.	Dec. 30, 24	70	144½	145	144	145	0
.....	.....	34⅜	27¼	(sh) 6,275,640	N.P.	Imperial New w.i	25c	Mar. 1, 25	5,500	28¾	29⅞	28½	29¾	+ ¾
100	66	84	70	$5,000,000	50	Indiana Pipe Line	$1Q	Feb. 14, 25	360	71	71	69¾	71	+ ¾
24¾	16¾	28¾	22½	(sh) 7,118,188	N.P.	International Petroleum	25c	Nov. 29, 24	19,200	24½	24⅝	23⅝	23¾	— ⅛
102	122	159	130½	$ 180,247,100	100	Magnolia Petroleum	1%stk.	Apr. 5, 25	280	132	135	132	133¾	+1¾
25⅞	20⅝	25½	22	6,362,500	12½	National Transit	50cQ	Mar. 16, 25	400	22	22¼	22	22¼	+ ⅛
97	54½	79	64¾	5,000,000	100	New York Transit	75cQ	Apr. 15, 25	180	64½	65	64¼	65	+1½
107½	72	88	81½	4,000,000	100	Northern Pipe Line	$3S.A.	Jan. 1, 25	220	83	83¾	82½	83¾	+ ¾
79½	55	75	62¼	60,000,000	25	Ohio Oil Co	50cQ	Mar. 31, 25	1,100	64	64¼	63¼	64	+ ½
43	27	44½	35¾	10,000,000	25	Penn.-Mex. Fuel	.....	.....	700	33⅝	34½	33½	34½	—3½
269	198	259½	209	60,000,000	100	Prairie Oil & Gas	$2Q	Jan. 31, 25	.....	.....	.....	.....	.....	.....
54¾	49½	65½	50¼	60,000,000	$25	Prairie O. & G. (new)	50cQ	Apr. 30, 25	3,300	54	55	54	54⅞	+ ⅜
111	100	126	106	81,000,000	100	Prairie Pipe Line	$2Q	Apr. 30, 25	1,680	117	119	116¼	119	+2
230	175	259	200	4,000,000	100	Solar Refining Co	$5S.A.	Dec. 20, 24	40	215	215	214½	214½	— ½
100	80½	103	81	10,000,000	100	Southern Pipe Line Co	$1Q	Mar. 1, 25	90	81½	81⅝	81½	81⅝	+ ⅛
171	117	197	139	20,000,000	100	South Penn Oil Co	.....	Sept. 30, 22	480	163	169	163	169	+5¾
89	68	84	65	3,500,000	100	Southwest Pa. Pipe Lines	$1Q	Apr. 1, 25	.....	.....	.....	.....	.....	.....
68⅜	54¾	70	59⅜	223,756,258	25	S. O. Indiana	62½cQ	Mar. 16, 25	29,100	61⅞	63½	61⅝	63⅜	+1¾
50¼	32½	46	30⅜	8,000,000	25	S. O. Kansas	.....	June 16, 24	1,600	31⅝	31¾	30¾	†30½	— ¾
121¼	101	124¾	114¾	16,864,434	25	S. O. Kentucky	$1Q	Mar. 31, 25	3,000	118⅜	118½	117½	117⅞	— ½
262	198	270	242	3,000,000	100	S. O. Nebraska	$8S.A.	Dec. 20, 24	30	240	242	240	†242	—3
48	37¾	48⅝	41	225,324,650	25	S. O. New York	35cQ	Mar. 16, 25	8,700	42⅜	42⅞	41¾	42⅝	+ ⅝
277½	275	369	338	14,000,000	100	S. O. Ohio	$2½Q	Apr. 1, 25	120	347	347	345	347	0
136	115	128	117½	7,000,000	100	do pfd	$1¾Q	Mar. 2, 25	.....	.....	.....	.....	.....	.....
81	20	27	16	1,722,931	25	Swan & Finch	.....	Nov. 1, 19	190	17½	17½	17	17	.....
88½	56¾	96¾	80⅛	61,523,075	25	Vacuum Oil Co	50cQ	Mar. 20, 25	2,800	85	86	84¼	85½	0
30	25	30½	30	100,000	10	Washington Oil Co	.....	Jan. 31, 22	.....	.....	.....	.....	.....	.....

†Borne Scrymser $2 extra April 15

(Continued from page 108)

"The table below does not include casinghead gasoline plants.

	1916	1922
Number of barrels of crude oil refined by plants producing gasoline (the 1916 period being 8 months)	4,501,000	12,892,000
Number of gallons of gasoline produced by these plants	50,078,000	298,652,000
Ratio of gasoline recovery	26.5	55.1

"The normal crude oil charging capacity of the refineries included in the table just given was as follows:

May 1, 1916 ..... 21,100 barrels
Jan. 1, 1924 ..... 33,500 barrels
Dec. 31, 1924 ..... 51,500 barrels
Apr. 1, 1925 ..... *64,500 barrels
*Exclusive of refineries that produce no gasoline.

"The corporation's properties on May 1, 1916, did not include any facilities for extracting gasoline from gas. Several casinghead gasoline plants are now owned, their output during 1924, deducting usual manufacturing and loading losses, being 19,035,000 gallons of gasoline.

Marketing Facilities

"The direct retail marketing facilities, consisting of bulk and service stations and pumps for lubicating oils and gasoline, are located in all of the north central states and have been developed most intensively in Colorado, Kansas, Nebraska, Iowa, Missouri, Illinois, Minnesota, Wisconsin, Michigan, Indiana and Ohio. Since the completion of the second unit of the Houston refinery and in preparation for marketing the output of the Marcus Hook refinery, active development has been under way in Pennsylvania, Delaware, Maryland, Virginia, North Carolina, New Jersey and New York.

"The number of tank cars employed mainly in the distribution of finished oils has been increased since organization from 1037 to 5248.

"Ocean terminals are at Tiverton, R. I., Tremley Point (New York harbor), Marcus Hook, Penna., Jacksonville, Fla., Mereaux and Westwego, La., Houston Ship Channel, Tampico, Mexico, Havana, Matanzas, Cienfuegos, Manati, Melic, Santiago, Antilla, and Neuvitas, Cuba.

"The corporation has direct representation through subsidiary and affiliated companies in France, Belgium and England, which distribute products not only in these countries but throughout western Europe.

"The volume of business done by the Sinclair foreign marketing agencies in 1924 was the largest on record.

"During 1924 the Sinclair Pipe Line Co.'s earnings were larger than during 1923, but no part of these earnings has been included in the coporation's consolidated income account."

New York Curb Bonds

Week Ended May 1

	High	Low	Last	Ch'ge
Cities Serv. 7s C	117⅛	117	117	0
do 7s D	102	101½	102	0
Galena S. O. 7s	105	105	105	0
Gen. Petr. 6s	101½	101⅜	101½	0
Gulf Oil 5s	99½	99	99	+ ⅛
do 5½s '28	101½	101½	101½	0
Phillips Pet. 7½ w.w.	104½	104½	104½	0
Pure Oil 6½s	100½	100	100	— ⅜
S. O. N. Y. 6½s	107½	107½	107½	— ¼
Sun Oil 5½s	96½	95¾	96½	+1
Transcontinental Oil 7s	99⅝	99⅝	99⅝	+ ¼
Union Oil Calif. 5s	96	96	96	.....
United Oil Prod. 8s	33¾	31⅛	31⅛	—2⅝
Vacuum Oil 7s	106⅛	105⅛	106	0

New York Bonds

Week Ended May 1

	High	Low	Last	Ch'ge
Associated Oil Gold 6s	102¾	102¼	102¾	0
Atlantic Refg. debs 5..	99⅜	99⅛	99¼	— ⅛
Barnsdall Corp. 8s	105¼	104⅞	105	+ ⅛
Calif. Petr. sf 6½s	103¼	102⅞	103¼	+ ⅛
Empire Gas & Fuel 7½s	103¾	103	103¾	0
Gen Asphalt 6s	102⅞	102¼	102¼	— ¾
Humble O. & R. 5½s	102½	100	102	+ ¼
Mid Con. Petr. 6½s	96⅜	95⅜	95⅞	— ½
Pan Amer. Pet. & Trans. 6s	110	107½	109⅞	+ ⅜
do 7s	106	105	106	+ ¾
Pierce Oil debs 8s	107	105	107	+2
Prod. & Refrs. 8s	110¼	110	110¼	+ ¼
Prod. & Refrs. 8 w. w.	112	112	112	0
Sinclair Con. 7s	91⅞	91⅜	91¾	— ⅛
do 6s	106¾	105½	106¾	+ ¾
do 6½s	86½	85½	86¼	— ¾
Sinclair crude 6s	100½	100¼	100½	0
Sinclair P. L. sf 5s	85¾	84¾	85¾	+1⅜
Skelly Oil 6½s	108¾	107½	108¾	+ ¾
Superior Oil 7s	97	97	97	—2
Tide Water Oil 6½s	103½	103⅜	103½	+ ¼
Union Oil Cal. 6s	104	103½	103¾	— ¼
do 5s	100	100	100	— ¼
Union Tank Car 7s	104⅞	104¼	104½	— ½

New York Curb Market

1924 High	1924 Low	1925 High	1925 Low	Par Value	Stocks	Transactions week ended May 1 Sales	First	High	Low	Last	Ch'ge
.....	.....	7⅞	2⅝	....	Amer. Maracaibo	22,700	7¾	* 7⅞	7	7½	— ¼
7	4	8⅜	5	10	Ark.Nat.Gas	2,700	5¼	6½	† 5	6¼	+ ⅜
6⅝	2¾	4½	2¾	25c	Carib.Synd	5,000	4¼	4⅜	4	4	— ¼
190	132	212	175	100	Cities Service	620	178	180	175½	179	0
.....	.....	37	35	....	do new	2,400	35½	36	35½	36	+ ⅜
82¾	67¾	82½	80¼	100	do pfd	600	81¾	82	81¾	82	+ ⅛
7¾	6⅝	7¾	7½	10	do pfd. B	.....	.....	.....	.....	.....	.....
19	13¼	21⅜	17⅝	10	do Bkrs. Sh	500	17⅜	17¾	17⅜	17¾	+ ⅛
10⅜	2¼	13⅝	8¼	N.P.	Creole Synd	13,300	13⅝	*13⅝	12¾	12⅞	— ¾
8	1½	7	4⅜	N.P.	Derby Oil & Ref	200	4⅜	4⅜	† 4⅜	4⅜	.....
34¼	17½	27	23	N.P.	do pfd	.....	.....	.....	.....	.....	.....
.60	.12	.25	.18	$5	Federal Oil	.....	.....	.....	.....	.....	.....
.....	.....	3¾	1⅞	N.P.	Gilliland v.t.c	100	1⅞	1⅞	† 1⅞	1⅞	— ⅛
.60	.15	.27	.15	$10	Glenrock	.....	.....	.....	.....	.....	.....
67¾	56	71	63½	25	Gulf Oil Corp	2,100	64	65	64	64½	+ ¼
7	1¼	5⅞	2¾	N.P.	Kirby Petroleum	1,200	3½	3½	3¼	3½	— ⅛
6¾	2⅛	7¼	5	N.P.	Lago Petroleum	42,800	6¼	6⅜	6	6¼	— ⅛
4⅞	1⅝	4¼	1¾	N.P.	Marland of Mexico	2,500	4	4	3½	3⅞	— ⅛
.....	.....	2	1⅛	$1	Mountain & Gulf	.....	.....	.....	.....	.....	.....
20¾	16	21⅞	18⅜	10	Mountain Prod	2,800	20½	20⅝	20¼	20⅜	— ¼
14	9½	14⅝	11⅞	5	Mutual Oil ctfs	.....	.....	.....	.....	.....	.....
6¼	3½	5¾	3⅝	5	New Bradford Oil	1,300	5	5⅛	5	5	— ⅛
44	17	24¾	16¼	10	New England Fuel	.....	.....	.....	.....	.....	.....
14	8⅛	10	8¼	25	New York Oil	400	9¼	9½	9¼	9¼	0
33⅜	29¾	33¾	31⅜	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
6	.70	1¾	1	N.P.	Peer Oil Corp	2,900	1	1⅛	1	1⅛	0
18¼	12¼	25	16	10	Pennok Oil	400	22	22¼	22	22¼	0
57¾	53¾	32½	18¾	25	Red Bank Oil	1,100	27	28	27	28	+2½
5½	3	9¾	3½	N.P.	Ryan Consolidated	1,700	6⅜	6⅜	6	6	— ½
10¾	6	8⅜	6½	10	Salt Creek Cons	400	7⅜	7½	7¼	7½	0
27½	19⅝	27⅝	24	10	Salt Creek Prod	3,500	25¾	26	25½	26	0
2⅜	.80	2	1	5	Sapulpa Refining	.....	.....	.....	.....	.....	.....
16¼	6¼	18¾	9½	10	Tidal Osage	.....	.....	.....	.....	.....	.....
4⅛	2⅝	4⅞	3⅜	5	Venezuelan Pet	11,800	4	4¼	4¼	4⅝	+ ⅛
8½	4⅝	7¾	5⅝	5	Wilcox Oil & Gas	1,000	5⅝	6¼	5⅝	5⅞	+ ⅛
13⅞	4¾	7	5¾	N.P.	Woodley troleum	800	5	5	4⅞	4⅞	— ⅛

Pittsburgh Stock Exchange

1924 High	1924 Low	1925 High	1925 Low	Par Value	Stocks	Transactions Week Ended May 1 Sales	First	High	Low	Last	Ch'ge
7	4	8⅛	5¼	$10	Arkansas Nat. Gas	4,249	5⅜	6¾	†5¼	6¼	+ ¾
40½	35⅜	.....	.....	N.P.	Columbia Gas	.....	.....	.....	.....	.....	.....
.....	.....	107¾	105¾	$100	Duquesne Lt.7s pfd.	248	107¼	107½	107¼	107¼	— ¼
30	30	.....	.....	25	Fayette County Gas	.....	.....	.....	.....	.....	.....
33½	26½	40	32¾	25	Lone Star Gas	3,924	38⅞	39¾	38	39	0
33¾	28⅜	34⅜	31	25	Ohio Fuel Corp	2,600	31¾	32	31¾	32	+ ⅜
16½	11⅜	16¾	13	1	Ohio Fuel Oil	160	13	13	13	13	— ½
28⅛	22¾	31⅜	26	25	Oklahoma Nat. Gas	885	29	29¾	29	29¾	+ ¾
9¾	6	8¾	6¼	5	Pittsburgh O. & G	.....	.....	.....	.....	.....	.....
10½	6	8¾	6¾	10	Salt Creek Cons	690	7⅜	7½	7¼	7½	0
16¼	8	13¾	8¾	10	Tidal Osage	60	10	10	10	10	0
92	92	.....	.....	100	do pfd	.....	.....	.....	.....	.....	.....

Pittsburgh Curb Market

1924 High	1924 Low	1925 High	1925 Low	Par Value	Stocks	Transactions Week Ended May 1 Sales	First	High	Low	Last	Ch'ge
2½	2½	.....	.....	N.P.	Arkansas Fuel	.....	.....	.....	.....	.....	.....
1	.20	1¾	.60	$5	Colombia Synd	4,000	1½	1¾	1½	1¾	0
.70	.25	.60	.15	5	Duquesne Oil	100	.20	.20	.20	.20	0
9½	5½	9	7	10	Forest Oil	.....	.....	.....	.....	.....	.....
66¾	57	70	64	25	Gulf Oil Corp	.....	.....	.....	.....	.....	.....
25¾	21	.....	.....	N.P.	International Pet	.....	.....	.....	.....	.....	.....
4½	4½	.....	.....	N.P.	Lago Petroleum	.....	.....	.....	.....	.....	.....
6	5	.....	.....	$10	Marshall Oil	.....	.....	.....	.....	.....	.....
2⅛	1½	2¾	1¾	1	Oklahoma Eastern	2,840	1⅝	1⅝	1½	1⅝	0
.....	.....	¾	¾	....	do rights	.....	.....	.....	.....	.....	.....
.77	.35	.40	.35	10	Omar O. & G	1,000	.35	.35	†.35	.35	—.05
8	3⅝	7	3	5	States Oil	.....	.....	.....	.....	.....	.....
14	10	11	9	10	TidalOsagenon-vot'g	.....	.....	.....	.....	.....	.....

*New High †New Low x Ex Dividend